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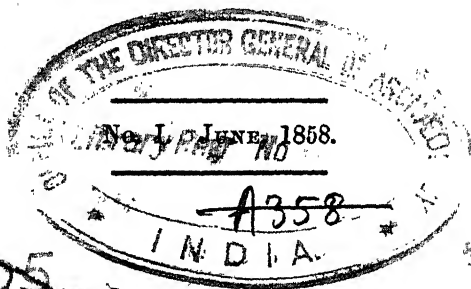
JOURNAL

OF THE

SHANGHAI

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JOB C. R. A. S.

PREFACE.

THE numerous works on China, which have issued from the press during the recent past, bear witness to the interest taken by occidental nations in what relates to this ancient empire; and if we might accept the quantity of letter-press as an index of the amount of accumulated information, assuredly our literature would present no mean evidence of the labours of our predecessors. Such however forms no fair criterion, and we shall probably not exceed the truth, if we reduce the amount of original matter to one third of what has been actually published; and even from that a considerable reduction must be made, if we discard what is not borne out by existing facts.

While venturing this general statement, it is far from our intention to undervalue the services of those who have employed their talents in endeavouring to remove the obscurity that hangs over everything pertaining to the "Middle Kingdom." Among such are to be found instances of erudition, of laborious research, and of industry, which will ever claim the esteem and gratitude of all who are interested in the subject. Much has been done, still more remains to be done. The field is ample, and the prospective reward is adequate to the encouragement of all who are in a position to lend a helping hand. We have distinguished contemporaries in the west, who have devoted and are still devoting themselves to the development of matters connected with this unique nation; and while sinologues resident within the borders of the empire need not feel ashamed to look up to such men for instruction in the studies to which they are attached, yet it must be admitted that the peculiar position of scholars in the west leaves them exposed to insurmountable difficulties, which can only be overcome by assistance from those who have access to the land and the people of China,—who can form an estimate of the institutions of the empire from personal observation,—and who can investigate at the fountain head all that bears upon the physical, intellectual, and moral condition of this countless population. This is a work beyond the compass of any single individual; and yet there are probably few, who have shared any degree of intercourse with the black-haired people, but can add their mite to the general fund. A single well-authenticated fact would frequently be of greater value than volumes of compilation of a more ephemeral character.

Influenced by such views, the Council of the Shanghai Literary and Scientific Society have commenced the publication of a Journal, of which the first number is here presented to the public.

Feeling assured that the tendency of this step is not detrimental to the prosperity of a sister institution in the south, they look with some confidence for that patronage which may ensure a continuance of the project. Aware of the

numerous and important duties that press upon most of the foreign residents in China, they would not urge an undue sacrifice of time from those who are friendly to the object; but in consideration of the advantages which must accrue to the interests of religion, of science, of commerce, and of civilization in general, from an increased knowledge of the nation where we dwell, they would respectfully commend the matter as worthy of the attention of all those who have been led by various interests to sojourn for a season in these Ultra-Gangetic regions. The object aimed at is essentially to bring to light and accumulate facts which may aid in the onward progress of Christian civilization; and it is well known that there are questions of historical interest and philosophical theories in the west, which only await the revelations which this empire, and this alone, can furnish, to supply those lacunæ which sometimes leave a doubt regarding the most plausible hypotheses. To sinologues this appeal addresses itself in a special manner, but by no means exclusively; for the man of science and the general inquirer, as they have each the opportunity of following up their several pursuits in this portion of the globe, so have they in a corresponding degree the means of adding to the stock of facts already on hand. This remark is sufficiently confirmed and illustrated by Articles II and VI of the present number.

By combined effort such an inroad may thus be made upon the field of research and observation which lies before us, as shall enable us to present a very acceptable contribution to Western Sinology.

Ed. Com.

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JOURNAL
OF THE
SHANGHAI LITERARY AND SCIENTIFIC SOCIETY.

ARTICLE I.

INAUGURAL ADDRESS,

BY REV. E. C. BRIDGMAN, D. D., THE PRESIDENT OF THE SOCIETY,

Delivered October 16th, 1857.

LITERATURE AND SCIENCE, next to true religion, are the richest, noblest, brightest ornaments of man. In these, great advances have been made without the aid of revealed truth, but the greatest advances only where literature and science have been cultivated under its hallowed influences. Here in this ancient empire, if I mistake not, it is mainly or solely on account of the absence of such influences, designed evidently by our Creator to give vigor to all the faculties of the human mind, that the Chinese never have been able to rise higher than to a secondary grade on the scale of nations, and that, in their literary and scientific attainments, while quite superior to most of their immediate neighbors, they are yet, taking them all in all, far inferior to the nations of Christendom.

To determine the position, which, in a purely literary and scientific point of view, is justly due to the Chinese,—as compared with all other races of heathendom on the one side and with the people of Christendom on the other,—is a question surrounded with so many difficulties that no judgment, given *ex cathedra*, could possibly be entitled to deference; I most cheerfully waive it, therefore, for the present, not doubting that, ere long, it will be taken up in course, and all its merits fully canvassed and fairly exhibited.

If the ancient Chinese were surpassed by any of their contemporary pagan nations in the west—Egyptian, Phœnician, Greek, or Roman,—as most modern historians and philosophers maintain, it was, no doubt, only because those occidentals enjoyed some faint rays of light derived from the early patriarchs of the human family. Moreover, as touching the earliest generations of the Chinese, it is quite probable that some knowledge—radiating from the same point of high antiquity, where men, after the flood, built their first altars to the one true God—did take an eastern direction, travel over the vast regions of eastern Asia, and eventually, on this far off domain, (subsequently referred to in prophetic vision as “the land of Sinim,”) did kindle up here the bright fires of civilization. Admitting it to have been thus, then the founders of this empire were only a few generations removed from the founders of the earliest kingdoms of the west, and both alike must have shared, in some degree, in whatever of literary and scientific knowledge survived the Deluge.

That Yau and Shun and their contemporaries were, in matters of pure science, far in advance of their successors, there seems to me scarcely any reason to doubt. If so, then the highest antiquity of this nation is really its brightest period. I know the idea has been often advanced, by native and foreign authorities of no mean reputation, that the ancient Chinese were all rude savages, utterly without science, living like the wild untaught islanders of the Pacific; but the more erudite native historians generally, and with good reason, I think, discard this hypothesis.

If then any weight is to be given to well-authenticated records now extant, it must be admitted that the progenitors of the black-haired people, at a very remote period, reached and took possession of what they early designated *Shin Chau*, “the Goodly Land,” and subsequently called “the Middle Kingdom.” The exact time of their migration, and the precise bounds they first marked out for their abodes, are indeed at present quite unknown. On these two points no reliable testimony has come down to our times. We may, however, naturally enough suppose that almost immediately after the confusion of tongues, or at whatever period “the nations were divided in the earth,” some one of the several clans, then comprising the entire race, began to move towards the rising sun, carrying along its effects, perhaps driving a few flocks and herds, seeking a convenient place of residence. The onward

progress of these adventurers would necessarily be slow, and, as a matter of mutual convenience, they would keep close to each other, traveling as nearly as they could on the same parallels of attitude, where they would be likely to find the most congenial climate. After moving on thus from stage to stage for a series of years, they would at length become stationary on some mild fertile and well-watered region, where they might hope to secure greater advantages than had elsewhere brightened their prospects. Then the migratory state of the adventurers would begin to be laid aside, and all the habits common to nomadic life, by degrees, would be succeeded by others better suited to their new circumstances.

At such a time and in such a situation, it is reasonable to suppose, the Chinese came to assume a national character. Lands were now cleared and houses erected; agriculture was encouraged; regulations, by common consent and for the good of all, were established; and, as the people multiplied and had much intercourse with one another, their language, and the arts of domestic, social and civil life, were gradually improved and began to assume fixed and regular forms. These may have been the days of Yau and Shun, or of their immediate ancestors, who, for aught we know, living at a period when man's life was greatly prolonged, were partners in the proud and audacious scheme of Babel.

This is the simplest account I am able to give of the origin of the Chinese people and their empire. While the descendants of Noah were yet all of one language and of one speech, and were devising ways and means to prevent their being scattered far abroad over the face of the whole earth, Jehovah, in his wise and inscrutable providence, we know, was pleased to confound their language so as to frustrate their perverse and impious design. Beyond these simple historical facts, I am not aware that we have any direct testimony that can help us in this matter. A link, a very short one it may be, is wanting in the historic chain; and in its absence, I see not why we may not accept this *supposed* origin of the Chinese as a fact, one in perfect accordance with the truth, concerning the dispersion of the nations, as recorded by Divine Inspiration, and, also, as a fact rendered in the highest degree probable by native historians.

In favor of the literature and science of the Chinese, ancient or modern, I have no wish to claim one iota beyond what is rightfully

due. In the eyes of the Confucian literati, their beautiful chirography and their classical books are indeed their most precious idols; but, knowing something of their defects, we have no intention of unduly exalting these remarkable productions. It will, however, be our duty to lay these, as well as whatever treatises they may have produced on the various sciences, all under tribute, and fetch from their store-houses more or less valuable contributions to the noble cause of natural and revealed truth. While therefore demanding a high place for their literature, I am equally ready to admit that it is not pure, and lofty, and rich like the writings of Moses, or the glowing stanzas of the sweet singer of Israel. In their oldest records, whether historic, philosophic, or scientific, there is, we must confess, a total absence of that wisdom and sound learning and true logic, so conspicuous, not only in the poetry and the prose of inspired seers, but in the select writings of most of our Christian philosophers.

This society, in commencing its researches, cannot be too scrupulous in accepting as historic facts and accredited truths such things only as are well substantiated by evidence; or if, in the nature of the case, direct and positive evidence is not to be had, such as shall not only not be opposed by truth, but shall be yet every way most probable. Not only are various and extensive researches to be made, but also, at every step of our progress, the most rigid analysis should be instituted, so that whatever is false shall no longer enjoy currency as sober and solid reality. In almost every sphere of learning, the ground is to be cleared; mountains of superstition are to be leveled; and old foundations, laid deep in error, are to be broken up, so that new structures, beautiful and substantial, may be erected in their stead.

It is not at all here, in China, as it was on the British Isles and in the wilds of America, when Christian men first landed on those shores. There, wherever they went, all was forest or desert, with but few inhabitants, and those few illiterate and without science; here, now living on every side of us, there is a world of intellects, an almost innumerable multitude of people—inheriting, as their own, immense literary stores and vast systems of recondite lore, venerated for their antiquity and strongly cherished in their affections. There are here false theories of religion and of ethics; false theories of physics and methaphysics; false theories of domestic and international government—all cemented and indurated by

science falsely so called. These, or all the falsities in them, are to be exploded, and must give way and disappear before the march of truth and right reason.

Leaving as open questions, for future investigation, the general topics already touched upon, we will now take a cursory survey of the field which this society may be expected to occupy; and, as we pass very rapidly on, I will simply indicate a few of the many leading topics that invite our attention, glance at the ways and means to be put in requisition, and, in conclusion, notice some of the incentives to action that bear directly upon us, who, in the providence of God, are now residents in the Middle Kingdom.

As it has been made my duty, by the worthy Council of our Society, to occupy this chair on the present occasion, I will endeavor to describe, with the utmost brevity, the character and extent of the work which now opens out before us, and show that this work is such as may, with all propriety, command the time and the talents of many laborers.

Work there is here in China—abundance of work—for the scientific and erudite, who love to take geographical surveys, and who, as the empire opens, sallying away from these narrow limits over its whole wide surface, comprising an area of not less than fifty-three hundred thousand square miles, will hasten to traverse its broad plains and rivers, ascend its high ridges and lofty mountains—sketching and delineating, as all naturalists delight to do, rocks, hills and dales, birds, beasts, and fishes, with every kind of trees and shrubs and flowers, breathing the pure fresh air of the highlands, and quaffing the wholesome limpid waters as they gush forth from crystal fountains.

Work there is here—abundance of work—for those who love to extend their quiet and unobtrusive researches deep down beneath the surface, and who will bring up and out to light treasures hidden for ages, and so make the everlasting hills, the old rocks, bear their testimony to the power and wisdom of their great Creator and give in their evidence to the faithfulness of His Inspired Volume, our Holy Bible.

Work there is here—abundance of work—for those who, elevating their thoughts, love to mark and measure the courses of the celestial orbs, and who, grappling with the more subtle fluids, will develope the laws of our atmosphere in its terrific cyclones,

sporting with big ships, breaking massive cables, and rolling high-swellng waves like mountains far on quite beyond their ordinary landmarks.

But time would fail, and your patience would be exhausted, if I should linger here to enumerate, in detail, the multifarious objects which bid us come on to work, as zealous laborers, in the wide domain of science and letters.

In the three great departments of natural history, the mineral, the vegetable, and animal kingdoms, there are thousands and thousands of objects, great and small, wooing the lovers of nature's forms and of her ever-changing drapery. A few enthusiastic men, such as Peter Osbeck, J. de Loureiro, Dr. Abel, Robert Fortune, and others of like genius, have borne away some brilliant specimens, and told the western world how rich and beautiful are the works of the Almighty in these eastern empires. But not the half, nay, not the thousandth part, has yet been told.

The geographical surveys, executed by learned Jesuits under the auspices of the Manchu government in the days of the emperor Kanghai and long ago published by Du Halde, still constitute our very best authorities for the position and character of the cities and other important localities over the whole empire, excepting on the coasts, which have been so well surveyed by our modern navigators, especially the English. But I need not stop here to say how much more work, of this sort, in the China Sea, around Formosa, Liuchiu, Japan, and up the Manchu coast, remains yet to be performed.

The fragmentary notices we already have, about the artesian wells in the province of the Four-rivers, about the aberrations of the old *Hwang ho*, and, traveling eastward, about the isles of the Pacific, and other strange things, archæologists are bringing to our ears,—full of novelty and romance—if of less practical importance than more sober narratives, do not lack interest as matters of curious inquiry.

In order of time, perhaps, ethnological researches should properly take precedence of some branches already noticed. Intense interest gathers around this subject; and it is as vast as it is interesting. Whence all the tribes of men in Eastern Asia, and on the isles of the wide North and South Pacific? Who will search out their origin and rehearse to us the narratives of the first adventurers in these half-unexplored regions? Among all the

inhabitants, both on the continent and on the islands, none are more interesting than the tribes long known to us as *Miautsz*, seemingly identical with the *Karens*, or "aborigines," of Burmah, who, on account of their ready reception of Christian truth, are at the present moment especially worthy of our consideration.

In intrinsic importance, as we hasten on to conclude our outline-survey, intellectual philosophy comes up as paramount. The powers and capacities of the Chinese mind, and its literary and scientific products, have not been fully understood by foreigners, and consequently not fully appreciated,—excepting by a small number, and generally those who have given most attention to native books. I have no hesitation in declaring the opinion, that the native mind here, even when compared with that in our most favored lands, is in no way of an inferior cast: this declaration, however, must be restricted to it in its earliest stages of childhood, before the darkening influences of error, in any considerable degree, come in to weaken and destroy its expanding energies.

There is, in this connection, yet one other point, long ago accepted as a fixed fact by my own judgment: it is this, that the Chinese people exhibit the most complete specimen, which the generations of past ages, or we ourselves, have ever had of what the human mind can attain to without the aids of true religion. It is my settled and firm conviction that Jehovah has been pleased, for reasons unknown to us, to allow the experiment here to be tried, that all men might see and know just how far human intellect, unaided by wisdom from above, can go, to what height it can attain, and to what limits it can expand.

Behold, then, the spectacle: look here upon this picture, and there on that: here is Heathendom; there is Christendom. But I need not pause, one moment, to mark the various lines and points of contrast; your own reminiscences will easily draw out the requisite objects upon our canvas, and add the proper coloring of light and shade, to fill up and complete these two pictures.

It is in the political system of the Chinese that we have, beyond all question, if not the most unexceptionable, yet certainly one of the most remarkable, developments the world has ever witnessed of what mere intellectual power and human wisdom can produce. The government of this empire, substantially what it now is, from time almost immemorial has stood forth, in colossal grandeur, a matchless piece of mechanism. The great body-politic, often con-

vulsed and torn asunder, still coheres. It seems like some strange imaginary monster, always decaying, and yet ever vital in every part. During the lapse of more than forty centuries, six-and-twenty dynasties, each claiming absolute dominion, have here risen, flourished and disappeared. Between the downfall of one and the establishment of another of these dominant families, there has been, not unfrequently and of greater or less duration, a period of complete anarchy, signalized by dreadful carnage and most horrible cruelties. At every such period, the supreme power, if it really existed in any individual person, was set at naught utterly or was kept wholly in abeyance, so that, instead of one united government, there were scores of petty kingdoms, each contending for the dragon-throne. Moreover, as it was often in days of old, so now, there is here, in the Middle Kingdom, no small amount of pure democracy. Hence their old proverb: "The people are the Emperor's Heaven."

Vox Populi, vox Dei.

Why now has it been thus with the Chinese? How have the inhabitants of this great empire been so long bound together and kept within the limits of Eastern Asia? Why have they not burst forth in their strength and overrun the surrounding countries? Or, why have not invading armies come and carried them away into captivity?

Both in its structure and in its *modus operandi*, this government presents points of inquiry far too numerous to be here now recited, and all of them most excellent themes for the philosophic statesman. Its laws of succession and inheritance; its legislative, executive and judicial forms; its mode of electing officers; its magistracy in its higher and lower grades; its competitive examinations; its rules of taxation; its balancing of duties between the governing and the governed; and then, proceeding outwards to neighboring states, its policy towards them: these are but a few of the many grave matters that come up for our investigation, than which no themes can well be more suggestive—especially when, as at present, great changes, external and internal, seem pending. Just now, indeed, we hear no clash of arms, no shouts of contending belligerents. The murky clouds that gathered near, not long ago, have passed off; they still, however, lower in the distance; and there is significancy in the very silence that prevails on every side of us both far and near.

Never before, in these eastern seas, were there to be seen such naval armaments, so numerous and so strong,—and plenipotentiaries from so many states, all clothed with such full powers, and having such large prerogatives. We seem to be on the eve of some great convulsion. In China, as in India, momentous revolutions are doubtless near at hand. Already indeed important changes have been effected, and we expect soon to see others still more important.

Before the members of this Society and the ladies and gentlemen I have the honor to address this evening, surely I need feel no hesitation in saying frankly, what I most fully believe, that these gathering fleets, comprising so many strong ships and brave hearts, are all most needful and every way suited to the occasion. The more potent and formidable the better. For all political purposes, at least, such an array is absolutely necessary in order to give legitimate effect to the most simple and just demands for international rights—rights honestly due from man to man,—rights which, I doubt not, we all alike ardently hope are to be resolutely insisted on, but which, we fear, will never be yielded with any grace or sincerity, so long as these noble sons of Hân fancy themselves to be, physically, the stronger party.

By speaking thus freely, let no one suppose that I would be an advocate of hostilities. Such I am not. As a minister of the gospel of peace, I am every way and in all things strongly inclined to a pacific policy. Strife, even deadly strife, too long already has here been the order of the day, between Chinese and foreigners. Hitherto the treaty stipulations for peace have been scarcely more than a dead letter. Had the Imperial government only the power and the means to carry into execution its old exclusive policy, all its solemn compacts, with Russia, with England, with France, and with the United States, would be worthless. “A great demonstration” would at once be made, and all barbarians driven from the empire, or shut up in some narrow corner, as they were of old in Canton. Let the Son of Heaven (impious assumption) only have full sway, and woe to the foreigners who shall then dare to approach his capital, except as vassals. Bring tribute and do homage they may, but never shall they tread the soil of the celestial empire, as the equals of the black-haired race. As there is only one sun in the firmament, so beneath the heavens there can stand but one supreme sovereign, one Son of

Heaven! It is time a better order of relations was introduced, and by means thoroughly peaceful, if indeed it can be so done; but if it cannot be so, why then let it be by constraining force.

As a literary and scientific body, we surely may be allowed, as it doth behoove us, to ask: Shall the great contest, to which the nations seem to be here hastening on, be one of mere physical force, or one of intellectual power? Rather, ought it not, and must it not combine both of these? To what extent are our high functionaries, deputed to negotiate with the supreme government of China, prepared to grapple with the master-minds of this empire? In what manner and to what degree are both,—the foreigners on the one side and the Chinese on the other—armed and equipped for a conflict of principle founded in truth, in reason, and sound wisdom?

In this connection, two things, it seems to me, must force themselves on the attention of every careful and impartial observer. They are these: on the one hand, our great ignorance of the political machinery of the Chinese, ignorance that makes us unable, while having the physical power, to deal prudently and skilfully with them, so as in the greatest possible degree to secure the best ends; on the other hand, the still greater ignorance of the Chinese in regard to the just rights of man generally, and especially in regard to our own free institutions, our modern discoveries and inventions, and the many and great advantages which will accrue to themselves as a vast and populous empire from friendly intercourse with the nations of Christendom.

It may be well to bear in mind that, if the Chinese are beyond compare the weaker party in arms and martial discipline, they nevertheless do possess powers and capacities, intellectually, for great and severe contests, provided they can be met on their own domain and in their own way. On intellectual ground, therefore, and in the proper use of their own language, let come the tug of war, and let the dread trial for supremacy be fairly and honorably met. On this broad arena and with these weapons, let the battle be waged as sharply as they please; let the search for right principles be instituted; let the conflict of opinions, guided by reason and sound logic, be urged and pressed on to legitimate issues; and eventually truth and freedom, in their majestic spheres, will be victorious and triumphant.

Here then, in the great Republic of Letters, and with forces as

large as possible, let the Shanghai Literary and Scientific Society set itself in battle array, and let each and all of its Members be prepared and resolved to quit themselves like men.

Now, however important it may be for us to acquire a profound and thorough knowledge of the mind and intellectual capacities of the Chinese, this can be effectually done only by means of their language, written and oral. For this end, as well as for all subsidiary aims, the study of their language, no matter how hard to be acquired, must be taken up and in a greater or less degree mastered. There is no discharge in this war. Foreign officials in China have frequently been greatly embarrassed, and have suffered not a little, for lack of interlocutors, men able to speak and write both in their own and in the native tongue. With but very rare exceptions, all our consuls and all our high commissioners, their full powers notwithstanding, have been compelled, in this matter of written and oral communication, to work by proxies. It is indeed a grave fault in our home executives that they have so much neglected to encourage the study of the Chinese language. The Russian government, by early establishing a college in Peking, has prudently and easily secured to itself and its subjects great advantages.

It will be the duty of this Society, and of its Council, to look early and well to this most essential department of its work, and in regard to it to devise liberal things. In the limits of this short address, it is quite impossible to do justice to a subject of such ample dimensions; but I regret this the less because I see around me so many sinologues, both lay and clerical gentlemen, younger and much stronger than myself, who will, I feel confident, supply my deficiencies on this topic, and in due course give large prominence to, and provide all the helps requisite for, the study of the Chinese language. Both in philology and grammar, a great deal needs to be done in the arduous business of working out a complete apparatus for the study of this language and literature; and this Society will not, I trust, be backward in giving countenance and support to all those who, with proper ability and zeal, enter on these highly important studies.

A series of carefully written essays, unravelling the history of Chinese literature, unfolding the nature and genius of this language, and illustrating by proper examples all its grammatical forms of dialect, intonation, and so forth, is now greatly needed; and its

production will afford work enough for many able pens. The field is so wide that, to investigate it thoroughly, and describe it well in all its parts, scores of men are required, all zealous and devoted lovers of polite literature.

Much injustice, it has often seemed to me, has been done to the Chinese by undervaluing their literature. They have indeed a hard language; and it is remarkably unique. For capacity, and power, and terseness, it is hardly surpassed. Its copiousness is unrivalled. Generally, it is not so much the language in itself, as it is our own means and methods of acquiring it, that must be pronounced faulty. That so few foreigners have hitherto tried to acquire this language, and in numerous instances with such indifferent success, must not be placed to the account of the Chinese, but rather it should be charged against ourselves.

In advancing from the study of the rudiments of this language—its philology as a primary sphere,—to the general literature of the Chinese, we enter on a field truly immense, where the separate branches of study are almost innumerable, and the extent of each branch very great. The ancient and modern classics, the historical, poetical, and philosophical writings of the Chinese, are far more elaborate than those of any other people. Digests of their laws and statutes, the general statistics of the empire extending through many successive generations, voluminous treatises on religion, education, music, the healing art; these, and many other kindred subjects, all claim from the members of this Society early and careful consideration.

Such is a panoramic view of the work which now lies before us, and invites us to action. The more we gaze upon it, the more do its height and depth, its length and breadth, expand, and the more urgently does it call for united enterprise. Such then being its magnitude, what, in conclusion, shall I say in regard to ways and means and incentives for its prosecution?

In the first place, laborers are needed, scholars, who love literary and scientific studies, and who will come to these high intellectual pursuits, not as to irksome toil, but as to sources of real pleasure and rich entertainment. Among all those who come to reside in China for a longer or shorter period, there can be very few, I fancy, who may not be able, by proper economy of time, to secure many half hours, or days, or long winter evenings, for pursuits so worthy of the well-disciplined and the well-furnished mind.

In the second place, for such diversified work, and for so many laborers, an extensive apparatus is needed; especially do we want a collection of books and also a repository of natural and scientific productions. In the Library, every valuable book extant in Chinese, and every foreign publication regarding China and its inhabitants, should have its appropriate place; and in the Museum, the number and variety of objects, each and all properly labeled and arranged, should be as complete as possible.

In the third place, as this Society advances in its researches, ways and means will be required in order that we may add our own literary and scientific contributions to the list of new publications, which characterize and make illustrious the remarkable age in which we live. A public journal, to be published quarterly or at such times as the Council may direct, will be an essential auxiliary. From a body of educated men so large as that now resident in Northern China—if we may so designate this part of the empire—it seems to me the public has a right to expect a publication of this kind.

In order to carry into effect the requisite measures for giving reality to these plans, some means will of course be needed. For the advancement of such objects as those we have been contemplating I feel that I should be doing wrong to a community like that in Shanghai and in the other foreign settlements in China, even to suppose that any desirable means, of a financial kind, will not be cheerfully afforded whenever really needed. I feel bound to testify, and I am happy in being able to do it thus publicly, that for a period of eight-and-twenty years, I have always found generous hearts and liberal hands, willing and ready to aid in enterprises designed for intellectual and moral improvement. In instances not a few such aid has been proffered.

In assuming the attitude of a Literary and Scientific body, the members of this Society find themselves in circumstances fitted to inspire a large measure of enthusiasm. Many believe, as well they may, that, at no very distant day, Shanghai will be one of the great centers of interest and of influence, perhaps the greatest, in the eastern hemisphere. As surely as it becomes such by the presence and the agency of the educated men of Christendom, all active in their various callings and professions, so surely will literature and science, under the hallowed influences of revealed truth, here find a nursery and a home, and shed forth healthful

influences on all sides of us, and to the very remotest limits of this vast empire.

Our incentives to action are great and manifold, and they appear especially so, when they are compared with those which surrounded other similar bodies, in other times and in other places. Here we enjoy the old and the new; here is an empire more ancient than any other on earth, with literature and science seemingly coëval with its origin; and around us is a population numbering, probably, not less than four hundred millions, comprising full one-third part of the whole human race.

Occupying here such high vantage-ground, Gentlemen of this Society, let us not be faint-hearted nor slack of hand; and, while anxiously commending our work to the benignant care of our God and to the kind consideration of our fellow-men, let us try, as much as we can, to make all these labors honorable to ourselves, beneficial to our generation, and every way promotive of the Divine Glory.



NOTES.

In preparing the foregoing Address for the pages of the Society's Journal, two or three paragraphs, apposite only to the occasion on which it was delivered have been erased; two or three also have been added; in others, some slight changes have been made. I add the following five brief notes.

No. 1.

Standard orthography for indicating the sounds of Chinese words.

On this point, and in the very name of this Society, the need of a standard becomes apparent, for we find the name of this city written in more than half a dozen various forms. The Rev. W. C. Milne, in his new publication, "Life in China," enumerates the following, Changhay, Xanghay, Zonghae, Shanhae, Shanghay, Shanghae, Shanghai; and one or two other forms.

Dr. Williams, in his "Middle Kingdom," alluding to this subject says: "Almost every writer upon the Chinese language seems disposed to propose a new system, and the result is a great confusion in writing the same name; for instance, *eull, olr, ul, ulh, lh, urh, 'rh, í, e, lur, nge, ngí, je, jí*, are different ways of writing the sound given to a single character."

In fact, so great is the diversity of usage, especially in writing the names of persons and places, that it is quite impossible to determine what orthography should be adopted. All however see and feel the need of a uniform system, that may be employed everywhere and for all the dialects as well as for the general language; and the time has come, I think, when such a standard should be formed. The Shanghai Literary and Scientific Society will, it is hoped, do all it can to secure the coöperation of all students of this language, for the attainment of the desired standard orthography.

No. 2.

Geographical extent of this empire.

Page 5, line 23.

Fifty-three hundred thousand square miles, (5,300,000 sq. m.) McCulloch's estimate, is the most satisfactory yet given; still it can be accepted as only an approximation to the truth. This is evident from the fact that, at the present time, no man, not even the *one man* himself, the emperor, knows what are the boundaries of the Chinese empire.

No. 3.

Dynasties and Chronology of the Chinese.

Page 8, lines 3 and 4.

In reckoning only six-and-twenty dynasties, we must commence with the Hia family, B.C. 2205; and of course exclude the mythological era of eighty thousand and odd years, and also the period of the Five Sovereigns.

The common Chronology of the Chinese, recorded in their cycle of sixty years, begins with the sixty-first year of the reign of Ilwang ti, who ascended the throne, B.C. 2697, or about 274 years after the birth of Noah. It has been suggested that "this should not be set down as a real date, but rather as an imaginary epoch, invented in recent times." "On the credibility of the Chinese early Chronology," a short but very valuable paper is contained in the Shanghai Miscellany for 1854.

No. 4.

*Russian College in Peking.**Page 11, line 20.*

According to the terms of the Treaty between Russia and China a mission consisting of ten Russians is allowed a residence in Peking; of these, four are ecclesiastics, and six are students, two studying the Chinese, two the Manchu, and two the Mongolian language. The mission is renewed every ten years; its location in the capital is within the walls, but without the precincts of what is called "the forbidden city," and not far from the north-east corner of the city.

No. 5.

*Population of China.**Page 14, line 9.*

The highest estimate of the Population, three hundred and sixty and odd millions, as given in Chinese statistics, and hardly believed by foreigners a few years ago, is gradually gaining credit as our knowledge of the empire extends. I have no hesitation in saying that the weight of evidence is greatly in favor of the native census published in 1812, which gives to the eighteen provinces and Shingking 362,447,183 as the number of inhabitants at that time. It is highly probable that since that date, there has been a large increase. Recently, however, causes have been operating that must have more or less retarded the increase of population.

ARTICLE II.

ON CYCLONES, OR THE LAW OF STORMS.

A PAPER BY SIR F. W. NICOLSON, BART., CAPTAIN OF H.M.S. "PIQUE;"

Read October 16th, 1857.

A FEW YEARS only have elapsed since the discovery of the law of Storms. Previous to the researches of Redfield, Reid, and others, all winds were supposed to blow in straight lines. At present there is a tendency to consider the variable winds as rotating in obedience to certain laws. All the violent storms, on which observations have been made, have been proved to have a rotatory motion. They are known under various names in different parts of the world. In the West Indies they are termed hurricanes, and in the Chinese seas tyfoons. A new name, cyclone, indicating their revolving character, is coming into general use. These names are used indiscriminately in the following pages.

Colonel Capper, of the East India Company's service, published a work on winds and monsoons in 1801. In this publication he suggests the possibility of ascertaining the position of a ship in a whirlwind by noting the strength and changes of the wind.

Notwithstanding this suggestion of Colonel Capper's, Mr. Redfield of New York may be considered as the discoverer of the Law of Storms. He collected numerous records of storms which had occurred on the American coast, and published these records in the American Journal of Science for 1831. Mr. Redfield's investigations led him to the conclusion that all storms are whirlwinds of considerable diameter, rotating in a particular direction, and having likewise a progressive motion over the earth's surface. Mr. Redfield was the first to explain the oscillations of the barometer as connected with the veering of the wind, a phenomenon which had perplexed the ablest philosophers since the invention of the barometer by Torricelli.

Sir William Reid, a well-known officer of the Royal Engineers, has greatly increased our knowledge with respect to storms. He was employed at Barbadoes in restoring the government buildings destroyed in the hurricane of 1831, when 1,477 persons are said to have lost their lives in the course of seven hours. Sir William's attention being thus turned to the subject of hurricanes, Mr. Redfield's paper came under his notice. Being impressed with the conviction that the views expressed in that paper were correct, Sir William sought to verify Mr. Redfield's theory, and for that purpose collected data from every quarter. He has published the results of his investigations in two considerable works, in which a most valuable collection of facts relating to meteorology will be found. From these volumes, and from Mr. Piddington's Horn-Book, a great portion of the information contained in the following pages has been gathered.

The labours of Redfield, Reid, and Professor Dove of Berlin, were in the first instance confined to gales in the northern hemisphere. Extending their researches to storms in southern latitudes, they all three, although working independently of each other, came to the same conclusion that gales south of the equator would be found to rotate in the direction opposite to those in the northern hemisphere. Observation has fully confirmed this theory, which they simultaneously advanced on purely speculative grounds.

Among other labourers in the same field, Dr. Thom and Mr. Piddington deserve particular notice. Dr. Thom has chiefly devoted his attention to storms in the Indian Ocean, both north and south of the equator.

Mr. Piddington holds an appointment under the Indian government at Calcutta. He has thus been enabled to collect a mass of data respecting storms. In addition to many memoirs on the subject, he has entitled himself to share with Sir William Reid the gratitude of every seaman, by publishing, under the title of the Sailor's Horn-Book, an excellent guide for the mariner in the regions of hurricanes and tyfoons.

The Law of Storms may be thus stated: All strong winds to the *northward* of the equator are whirlwinds, revolving in a direction *opposite* to that of the hands of a watch. To the *southward* of the equator the rotation is in the *contrary* direction.

In addition to this rotatory movement, storms have likewise a *progressive* motion, which may be thus described: Taking the

West Indian hurricanes as an example for the northern hemisphere, we find that they move to the W.N.W. in the first instance; as they recede from the equator, their course becomes northerly, and they gradually recurve to the N.E. Their path is a species of parabolic curve, whose vertex lies towards the Gulf of Mexico in about 30° of north latitude.

Storms in the southern hemisphere move in a westerly direction in the first instance, then bend to the southward, and afterwards recurve to the eastward. The final direction of those best known, which have been chiefly observed in the neighbourhood of the Mauritius, is E.S.E. Although fewer storms have been accurately observed in the southern than in the northern hemisphere, a sufficient number of storm-tracks have been laid down to prove that their paths are curves of a parabolic form, similar to those north of the equator, and that their vertices are situated in about 20° to 25° of south latitude.

The investigation of the recent storms in the Formosa Channel and in the neighbourhood of Shanghai being the chief purpose for which this paper was written, no further allusion will be made to the remarkable storms which have from time to time occurred near the Mauritius and the Island of Rodriguez in the Southern Indian Ocean, with the exception of one instance, to which reference will be made when treating of another branch of the subject.

The storms' rates of progress, as ascertained by the comparison of numerous observations, exhibit the most remarkable differences of velocity.

<i>miles an hour.</i>		
Redfield estimates the rate as		9.5 to 43
Thom	Do.	2 to 9 or 10
Piddington	Do.	2 to 39
Reid	Do.	7 to 12

It is worthy of note that the hurricane of 1823, which caused an inundation of the Ganges and Burrampooter, in which 50,000 people perished, is the storm whose rate of progress is the slowest.

The diameters of cyclones vary as much as their rates of progress. Some have been found as small as 50 miles in diameter; while others are said to have expanded to 1,000 miles and upwards. These storms of vast circumference have principally been noticed in the North Atlantic. The average diameter of a cyclone may be estimated at from 300 to 500 miles.

In the Chinese seas, and in the Formosa Channel, the tyfoons are generally of small diameter; they may therefore be easily avoided, provided there is sea-room; and when they are of these small proportions they pass over a vessel in a shorter space of time. In the hurricane which devastated Coringa on the western side of the bay of Bengal, it was found that the violence of the wind increased as the diameter of the cyclone contracted. The converse may likewise be true, that the force of the wind decreases as the cyclone's diameter increases. This may probably explain why the gales felt on the British coasts are less severe than the West Indian hurricanes; for they are generally storms of very large diameter.

In considering the phenomena of cyclones, it should be remembered that they are confined to the lower strata of the atmosphere. At a comparatively moderate height clouds and winds do not exist. Cyclones must not be considered as cylindrical in shape; they are in fact flat discs, whose thickness is very small as compared with their diameters, and they have a concave upper surface. The axes upon which they may be supposed to revolve are often inclined at a considerable angle to the horizon. We may thus conceive the rear of a storm to be tilted up, while the anterior semicircle alone impinges upon the earth. We thus see how it may be possible for a vessel to encounter only a portion of a cyclone, although the centre may have passed over her. Many of these severe storms appear and disappear so suddenly, that they are supposed to have dashed down upon the earth, like the swoop of an eagle, and then soared up again after touching only a small part of the earth's surface. Many great storms have probably terminated in this manner, for it is frequently found impossible to trace them beyond a certain point, and we can hardly suppose them to cease suddenly, without any previous symptoms of gradual subsidence.

To persons who have never experienced either a typhoon or a hurricane, it is impossible to give an idea of the extreme violence of the wind, and of its fearful roaring when the storm is at its height.

We read of boats being entirely rent to pieces by the force of the wind alone, of masts broken although no sails were set, and sails blown away from the yards although furled and secured with double gaskets. Even the most sheltered harbours afford no certain security in these terrific storms. At Hongkong, and even

in Malta harbour, vessels have been totally wrecked. On the 4th of August 1835, the *Raleigh* corvette was upset in a typhoon when under bare poles. The crew scrambled upon the upper gunwale and managed to cut away the rigging; fortunately the masts carried away and the ship righted with four feet of water in her hold.

Sir W. Reid records the following anecdote as an instance of the roaring of the wind in a hurricane. During the Barbadoes hurricane of 1831, Colonel Nickle of the 36th Regiment, while standing under the arch of a lower window of his house, did not hear the fall of the roof and upper story, although he was covered with dust from the falling ruins.

Such being the terrific fury of the wind near the central part of a cyclone, it becomes a question of the utmost importance to the seaman how the extreme violence of a revolving storm can be avoided. In the first place he must ascertain the bearing of the storm's centre. This he can readily do by means of a figure similar to that of diagram I. *See next page.*

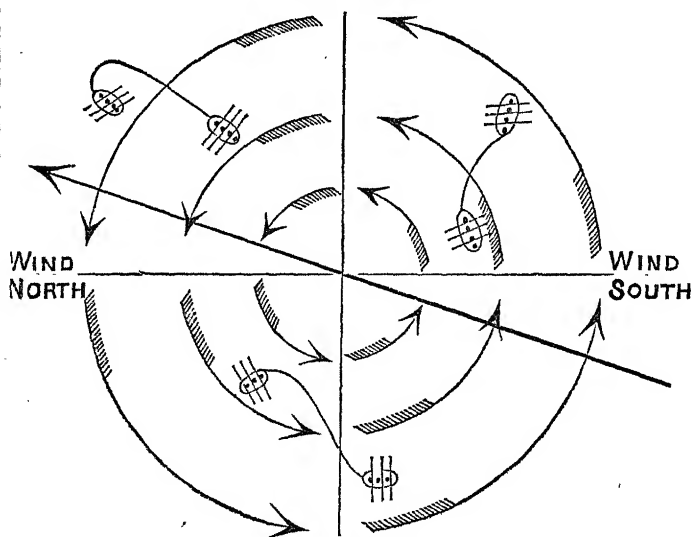
He will find that the bearing is eight points of the compass from the direction of the wind. Thus, in the *northern* hemisphere, with the wind at north, the centre bears east; wind east, the centre bears south; wind south, the bearing is west. In the *southern* hemisphere we must reckon the eight points of the compass the other way. The wind at north shows the centre to bear west; wind at east, the centre bears north; and so on. The incurving of the wind near the centre may in some degree modify this rule; but for all practical purposes it will be found sufficiently accurate.

In addition to the bearing of the storm's centre, the direction in which the whole body of the storm is travelling, and its rate of progress, as well as the distance from the vortex, are matters of the greatest interest to the seaman.

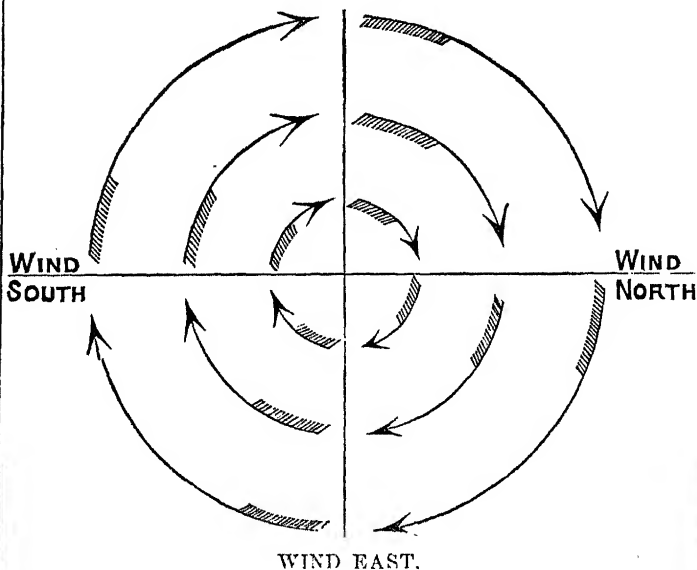
In the bay of Bengal, Chinese seas, and Formosa Channel, the course of revolving storms lies generally between N.W. and W.S.W. In the West Indies they likewise travel to the W.N.W; but as they afterwards recurve to the N.E., this fact must not be overlooked when navigating the North Atlantic.

Among islands and in narrow channels, hurricanes may frequently be deflected from their usual directions; in these cases a seaman has rarely sufficient sea-room to avoid them;

DIAGRAM I. NORTHERN HEMISPHERE.
WIND EAST.



WIND WEST.
DIAGRAM II. SOUTHERN HEMISPHERE.
WIND WEST.



hence the direction in which the storm is advancing becomes of less importance.

The barometer affords an invaluable test for ascertaining whether the centre of a storm is approaching or not. Since this instrument measures the weight or pressure of the atmosphere, it is evident that if the column of air above a barometer is diminished, the pressure supporting the mercurial column is lessened, and the mercury, or—as we loosely phrase it—the barometer, falls. Bearing this fact in mind, let us examine in what manner the rapid rotation of the wind can affect the barometer.

When a rotatory motion is given to a fluid in a glass or jar, we find that the centrifugal force drives the water away from the centre, causing a depression at that point. In fact the surface of the fluid, instead of being level, becomes concave. A similar depression takes place in the atmosphere during a cyclone; the air is spread out by the centrifugal force, and the heights of the atmospheric columns diminish gradually from the outer edge or circumference of the cyclone to the centre. We can thus explain, what experiment and observation teach us, that the barometer falls as the centre of a rotating storm approaches, and rises as that point recedes from the place of observation. Consequently it may be assumed as a rule that the lower the barometer the nearer is the centre of the storm.

The connexion between the movements of the barometer and the changes in the direction of the wind may be noticed during any revolving gale. While the bearing of the wind shows the centre to be approaching, the mercury falls; but no sooner has the wind shifted to that quarter which indicates that the centre is moving away from the observer, than the mercury begins to rise.

Although it is generally found that the violence of the wind in a cyclone is greatest at the centre, this does not always hold good, for at times the barometer rises before the most violent portion of the storm has passed. This peculiarity is probably caused by the upper part of the whirlwind moving forward more rapidly than the lower portion, which is retarded by the friction of the earth's surface. The axis of the whirlwind would thus be inclined forward, and the least atmospheric pressure would occur before the most violent part of the cyclone had reached the place of the observer.

In considering the disturbance of the air by whirlwinds, we must remember that no permanent diminution of pressure at a particular

spot can take place, for the equilibrium must be speedily restored by other portions of air rushing in to equalize the pressure.

The diameters of cyclones and their rates of progress are so exceedingly variable, that all estimates of the distance from the centre must of necessity be very vague; however, careful watching of the barometer, and of the changes in the direction of the wind during a storm, may enable us at times to form a tolerably accurate estimate of our distance from the vortex.

We may now proceed to illustrate the manner of avoiding the most violent portions of revolving storms. Confining our attention solely to gales in the northern hemisphere, whose progress is in a westerly direction, we shall avoid confusion and be enabled to place the subject in a clearer light. A seaman who thoroughly understands the means of avoiding a cyclone in the northern hemisphere, will have little difficulty in applying this knowledge should he encounter a storm to the southward of the equator. He must then reverse every operation. Where he would have steered north in the northern hemisphere, he must steer south, etc.; or if the port tack was the safest in the northern, the starboard tack would be the one of least danger in the southern hemisphere.

Before explaining the management of a ship in each quadrant of a cyclone, we must remember that the wind veers in a different manner in the northern and southern semicircles of a revolving storm. If the centre is passing to the northward of us, the wind being north at the commencement of the gale, we shall find that it veers round to N.W., then to W. and S.W.; but should the centre be passing to the southward, the wind veers from N. to N.E., E., and so on. This difference has frequently perplexed seamen and other observers, and has given rise to the supposition that all revolving storms do not obey the same law, and that they occasionally revolve in either way in the same hemisphere. A consideration of the changes of wind which a ship must experience in each quadrant of the cyclone will explain this apparent anomaly.

S.E. Quadrant. Suppose a vessel sailing through the Formosa Channel in the typhoon months, between June and December, and that she has a strong wind from the W. or S.W., with a high confused sea; the barometer low but inclined to rise; a heavy bank of clouds hanging to the north and north-westward. These are symptoms of a cyclone passing to the northward of this vessel, which is in the S.E. quadrant of the storm. If bound to the

northward, the only caution to be used is not to steer too much to the *westward* until the barometer rises and the weather clears. If bound to the southward, the vessel will be sailing away from the storm; she will therefore be in no danger of encountering it.

S. W. Quadrant. In the S.W. quadrant of the same or of a similar cyclone, with the wind at N.W., the vortex can be easily avoided, either by steering to the southward if bound in that direction; or, if bound to the northward, a vessel may sail round the southern part of the gale, keeping well to the southward until the change of wind and the rising of the barometer show that the centre has passed away to the north-westward. The winds will be N.W., then W., S.W., and finally S. and S.E. The case of the *Mansart*, which will presently come before us, affords a striking example of thus avoiding the central portion of cyclone.

N. E. Quadrant. The ship drawn in the N.E. quadrant (see Diagram I.) with the wind at S.E., represents the *Pique* on the 11th of May 1855, in the North Pacific, Lat. $42^{\circ} 43' N.$, Long. $168^{\circ} 1' E.$

In the morning a fresh breeze was blowing from the S.E. with heavy rain, which became a perfect deluge in the afternoon. At half past five o'clock, the studding-sails and royals were set, but the wind increased so rapidly that the ship was under close-reefed fore and main topsails and reefed foresail at 7 o'clock, running 10 knots before a strong gale. At noon the Bar. was 29.58; at 3 P.M. 29.42; and at 8 P.M. it had fallen to 28.94.

The course steered was N.W., and the centre was approaching, as shown by the falling barometer. As this appeared to be a favourable opportunity for testing the accuracy of the Law of Storms in a region where few observations have been made, the course was altered from N.W. to N.N.E., thus steering away from the centre. As we anticipated, the barometer *immediately* ceased to fall, and in half an hour it had risen 0.02; in an hour's time it rose 0.07, and the weather began to clear. A dense heavy bank of clouds pointed out the position of the gale to the westward.

Having thus shown the immediate effect on the barometer by steering away from the centre of a storm, the course was again altered to N.N.W. The mercury still continued to rise, but less rapidly than when steering to the N.N.E., and the weather improved, though more slowly than before. During the night the wind veered round from S.E. to S.; and at 4 A.M. it was blowing a

strong breeze from the S.W., the Bar. having risen to 29.20. A heavy confused sea was running from the westward. On the day previous to this breeze, the wind was northerly and the barometer rising; during the night of the 10th and 11th of May it was quite calm. This rise of the barometer and the dead calm frequently occur immediately before the approach of a revolving storm. The rise of the barometer is caused by the atmosphere being as it were heaped up in front of the advancing gale.

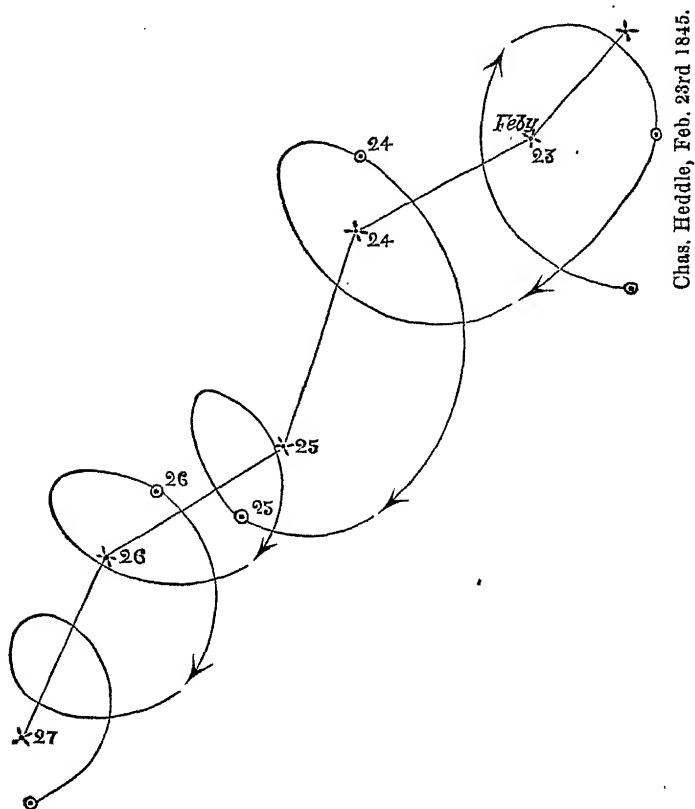
N. W. Quadrant. The last instance to be considered is one of a ship in the N.W. quadrant of the cyclone. In the northern hemisphere and with a gale moving to the N.W. this is the most dangerous quadrant. The wind will be about N.E., rapidly increasing and veering to the northward; the barometer falling fast. The ship in the diagram is first shown as on the starboard tack; to remain in this position would expose her to the danger of being taken aback. She must therefore either heave to on the port tack, or, should the risk of thus meeting the whole fury of the storm be considered as too hazardous, she may bear up and steer about S.W., gradually hauling round, as the barometer rises, first to the westward, and then to the northward, if bound in that direction. The vessel would thus pass across in front of the storm, and would probably run no greater risk than if hove to on the port tack.

In all these cases sea-room is essential to enable the seaman to avoid the central part of a cyclone. Unfortunately the navigator in these seas is frequently too near the coast of China to do more than get an offing. And as all the gales in these regions come from the east or south-eastward, vessels are generally unable to escape from the most violent portions of these storms.

These instances have been selected from many others, for we may imagine a vessel in every possible position with reference to the centre of a revolving storm. She may be running in advance of it; or following it at nearly the same rate as the storm is travelling, occasionally dropping behind, and then coming up with it again; or she may run round and round in the storm, as actually happened to the *Charles Huddle*, a fast sailing brig belonging to the Mauritius. This vessel encountered a hurricane when about 196 miles north of that island, and she continued running under bare poles before the wind at the rate of 11 and 12 knots for five days, marking out the peculiar cycloidal track shown in the

diagram. Mr. Piddington considers this storm to have been advancing at about four miles an hour. We must remember that this circumstance occurred in south latitude, where the rotation of the wind is in the opposite direction to that experienced during severe storms in the northern hemisphere.

DIAGRAM III.



Chas. Heddle, Feb. 27th 1845.

The dates on the curved line mark the vessel's position at noon each day, while those on the straight lines point out the estimated position of the storm's centre.

We may now examine the phenomena observed during the gales which visited this coast in the month of September; one of these

storms confirms in a striking manner the correctness of the theory by which the Law of Storms has been established.

A severe gale passed over Shanghai and its neighbourhood on the 7th and 8th of September 1857. This gale fell short of a typhoon in violence, yet it was sufficiently severe to cause serious damage to several vessels at anchor in the Yang-tse Kiang, and among the Parker Islands at the mouth of that river. Although the changes of wind experienced at Shanghai were confined to a few points of the compass, they indicated, by the order in which they occurred, that the storm was one of a rotatory character. Hence it became a matter of interest to procure data from vessels arriving in the port, and by thus extending the field of observation, to ascertain the dimensions of this cyclone, its direction and the rate of its progress.

With this view a few extracts were made from the Log-books of vessels arriving at Shanghai after the gale. The information thus obtained failed to throw much light upon the Shanghai gale; for it was found that all the vessels had experienced the same winds, and the changes appear to have occurred nearly at the same times as those observed at Shanghai and Woosung. In making these extracts, it became apparent that a typhoon of unusual severity had passed over the north end of Formosa, and across the Channel between that island and the coast of China, early in September.

Although inverting the order in which the two gales occurred, it will place their peculiarities more clearly before the reader, if a few remarks are made in the first place on the Shanghai gale, and if we then proceed to investigate the remarkable phenomena recorded on board the vessels which encountered the cyclone of the 3rd and 4th of September.

H. M. S. *Pique*, at Shanghai. Between Friday Sept 4th and Monday Sept. 7th, a strong breeze was blowing at Shanghai from N.E. to E. On Monday afternoon the weather became squally and the barometer began to fall. At noon the wind was N.N.E., Bar. 29.796; and at 8 P.M. it had fallen to 29.676. During the night the breeze freshened rapidly, especially between midnight and 4 A.M. of the 8th of Sept.; the barometer fell in that time from 29.556 to 29.406, and the wind increased to a strong gale from the northward. Throughout Tuesday Sept. 8th it was blowing a heavy gale with rain. The barometer fell gradually until 11 A.M., when it had reached its lowest point 29.366. At that level it

remained until 4 P.M., when it began to rise slowly, the wind veering round to the westward. The wind blew hardest from N. by W. At midnight the barometer had risen to 29.496 and the wind had sensibly moderated, although still blowing a fresh gale from W.N.W. with rain.

H. M. S. *Hornet* rode out the gale in the Yang-tse Kiang, off the entrance of the Woosung river. On the 7th of Sept. the wind was generally N.E. to N.N.E. After midnight the wind increased, rapidly veering round to N. From 8 A.M. until 3 P.M. of the 8th Sept. it was blowing a severe gale, first from N., and latterly from N.N.W. The barometer reached its lowest point at 2 P.M., 29.18; thus it remained until between 3 and 4 o'clock when it began to rise slowly; at midnight it stood at 29.35; the wind had then veered to N.W. by W., and the gale was abating.

The Log-book of the *Light Vessel* in the Yang-tse Kiang, records the same changes of wind and nearly the same variations in the height of the barometer as are shown in the Logs of the *Pique* and *Hornet*. On board the Light Ship, the barometer fell to its lowest point 29.28 at 11 A.M. of Sept. 8th. In the afternoon of that day the cables parted, although of sufficient size to hold a frigate; the small anchors were let go, and held the ship until next day. After parting one cable, an ineffectual attempt was made to work to windward under sail. Ultimately the *Light Vessel* was towed into Chinhai by the *Erin*, one of the Ningpo sailing boats.

The *Hurkaway* rode out the gale under the Parker Islands. After the extreme fury of the gale had passed, her windlass gave way. The bight of the cables tore from its fastenings and swept away everything above the deck. Although the foremast brought the vessel up, it was found necessary to cut away the masts; for the bight of the cables would soon have made its way through the mast and would probably have torn out the bows.

At the same place the *Waverley* had a narrow escape of becoming a total wreck; and the *Egypt* was totally lost on the rocks of Bonham Island, only one man being saved out of a crew of fourteen persons.

From the Log-books of these vessels it appears that the gale increased in strength as the wind veered from the N.E.d. to the N.; during the height of the storm the wind was N. by W. to N.N.W. As the wind became more westerly, the gale moderated, the barometer rising at the same time.

The following relative positions of the vessels and the times at which their barometers were at the lowest point prove that the storm was approaching from the south-eastward, while the veering of the wind shows that the centre of the cyclone passed to the eastward of all the vessels.

HARKAWAY.

Light Ship bore N.W. $\frac{1}{2}$ N. 40 miles. Lowest Bar. 9 A.M., Sept. 8th.
Pique bore N.W. by W. 60 miles.

LIGHT SHIP.

Aerolite bore W. by N. $\frac{1}{2}$ N. 10 miles. Lowest Bar. 11 A.M., Sept. 8th.
Hornet N.W. by N. 28 miles.
Pique W. by N. 27 miles.

AEROLITE.

Hornet bore N.W. by N. 18 miles. Lowest Bar. Noon, Sept. 8th.
Pique bore W. $\frac{1}{2}$ N. 16 miles.

Hornet bore from *Pique* N. by E. $\frac{1}{2}$ E. 10 miles; and the barometers of both these vessels, which were to the north-westward of the other vessels, did not rise until 3 or 4 in the afternoon.

The observations made at Shanghai and in its neighbourhood are confined to a small portion of this gale; they in consequence fail to give any idea of its dimensions or rate of progress. We may yet hope that information from vessels farther to the eastward, between the 7th and 9th of September, will be obtained by persons interested in the Law of Storms; for many vessels outward bound from Shanghai must have encountered this severe gale.

Although our information respecting this Shanghai gale is less complete than could be desired, the observations on the storm which passed across the Formosa Channel on the 3rd and 4th of September afford a clearer illustration of the Law of Storms.

Commencing with the Log-book of the *Antonita*, we find that she anchored on the 23rd of Sept. under the islands of Chinki and Taluk in Lat. $28^{\circ} 6' N.$, and Long. $121^{\circ} 23' E.$ As the gale freshened, a heavy swell from the S.Ed. set into this anchorage, gradually increasing until the sea washed completely over the vessel. On Sept. 4th the *Antonita* weighed one anchor, slipped the cable of the other, and ran for shelter into Lotsin bay, a short distance to the westward of her former position, and remained there until the gale moderated. It is evident that this vessel was in the *northern* semicircle of the cyclone, for the wind veered from N.E. to E.N.E., then to E. and finally to E.S.E., when the gale

began to moderate, and the barometer rose. It reached the lowest point at noon on Sept. 4th, being then 29.40.

The position of the storm's centre as fixed by the Peninsular and Oriental Company's steamer the *Cadiz*, bore S. $\frac{3}{4}$ W. 90 miles.

The first symptoms of the approaching gale are noted on board the *Lanrick* on the 4th of September. A heavy confused sea is seen rising from the N.E.d.; the barometer and sympiesometer are both falling, and the wind freshens rapidly, first from the W.N.W., then veering to W.S.W., and moderating as it comes round to S.W. The *Lanrick's* barometer was at its lowest (29.03) at 11 A.M. on Sept. 4th. At noon on that day she was in Lat. $24^{\circ} 52' N.$, Long. $119^{\circ} 47' E.$, 67 miles south of the White Dogs, well-known islands off the entrance of the river Min, which flows past the city of Foochow. The *Antonita* bore from the *Lanrick* north 220 miles, and the storm's centre, as placed by the *Cadiz* at noon Sept. 4th, bore N.N.E. $\frac{1}{2}$ E. 115 miles.

The winds blowing from opposite directions, experienced at the same time by the *Antonita* and *Lanrick*, furnish a convincing proof that the centre of the cyclone passed between them,—a fact we are enabled to verify by the accounts of the gale received from the *Water Witch* and *Cadiz*.

Before describing the remarkable phenomena observed on board these two vessels, we may notice the Log of the French ship *Mansart*, the only vessel from which any information has been received respecting the weather to the eastward of Formosa. This vessel met the cyclone, between the north end of that island and the small adjacent island of Kumi, in the evening of September 2nd. Finding the gale to be freshening rapidly from N.W.d. with every indication of bad weather, Captain Gravereau bore up to seek for shelter under the Meiaco islands. As the gale increased, the *Mansart* continued scudding before it, altering her course so as to keep the wind right aft, as it veered round from N.W. to W. and finally to S.W. She thus sailed round the southern semicircle of the cyclone, and eventually steered to the N.W.d. passing between the Meiaco and Loochoo group of islands. This happened on the 4th of September, when the weather had moderated and the wind had veered to S.E.

The *Mansart's* Log shows the gale to have been at its height in the afternoon of Sept. 3rd, the wind being then S.W. Calculating the position of the storm's centre at that time by the rate of progress

obtained from its positions as noted on board the *Water Witch* and *Cudiz* on the 3rd at midnight and 4th Sept. at 11 A.M., we find that it bore from the *Mansart* N.W. 140 miles. The *Mansart's* barometer stood lowest (28.31) from 4 P.M. to midnight, on Sept. 3rd. It does not appear to have been registered very frequently. Captain Gravereau describes both wind and sea as terrific, his crew were constantly at the pumps, and a portion of the cargo was thrown overboard to save the vessel from foundering.

The Logs of the *Antonita*, *Lanrick*, and *Mansart* indicate the changes of wind at different points of the storm's circumference.

We may now examine the Log-book of the *Water Witch*, and the account of what happened to the *Cadiz*, both of these vessels having passed through the vortex of the cyclone. During the whole of Sept. 3rd, the *Water Witch* had a heavy gale from N. by E. to N. It is worthy of notice that the wind remained steady, indicating that the vessel was lying nearly in the track of the advancing centre, whose bearing therefore remained very nearly if not exactly the same. The aneroid, as may be supposed, was falling very rapidly; if it has been correctly registered, it fell one inch and 3-10ths between 6 A.M. and midnight. At that time a hurricane was blowing from the north, when it suddenly became completely calm. The sky was clear overhead and the stars were shining brightly, while around the horizon all was in gloom and darkness. An awful sea rising in huge masses broke over the vessel on all sides, sweeping her decks from end to end. Birds were flying about in all directions; a fact likewise noted on board the *Cadiz*. After about ten minutes of treacherous calm, the hurricane again burst forth with redoubled fury from the south, exactly the opposite point of the compass. Until 10 A.M. the wind was terrific; the ship appeared about to sink; all efforts to cut away the masts or to work the pumps were unavailing, for the crew were completely paralyzed. The gale then moderated and veered round to the S.Ed., but a "tremendous sea still ran mountains high." The barometer fell to 28.35.

The *Cudiz* was 15 miles N.N.E. of Tung-ying at 10 P.M. on Sept. 3rd. The weather looked threatening, the barometer was falling, and a strong gale was blowing from the northward. Being desirous to call off the White Dogs for the Foochow mail, Captain Aldham hove to on the port tack, the ship's head being about E.N.E. The wind increased during the night, but remained quite

steady, showing that the centre of the storm remained on the same bearing as it approached the vessel. Between 5 A.M. and 11 A.M. the wind blew with the greatest fury. The storm then ceased and a calm succeeded, lasting for about three quarters of an hour. Birds and butterflies were dropping on the decks in great numbers. Suddenly the hurricane again commenced with a blast from the S.S.E., veering gradually round to the eastward as it moderated. Fortunately none of the wreck from the spars became entangled in the screw, for had the engines once stopped the *Cadiz* would most probably have foundered. The screw alone kept her bow to the sea, which is described as tremendous, especially at the time of the sudden change of wind, when it appeared like a huge wall of water about to overwhelm the vessel.

On the arrival of the *Cadiz* at Amoy it was ascertained that the typhoon had not been felt there. The barometer on board the *Cadiz* fell to 28.40.

The Logs which have been selected for investigation are those of a few vessels whose positions were most favorable for illustrating the remarkable features of this cyclone. The observations made on board other ships, such as the *Banshee*, *Aerolite*, and *Pride of the Ocean*, prove this storm to have been one of limited extent, especially as regards its southern portion. For all the vessels to the southward of the *Laurick* had moderate weather; but in all their Log-books a heavy N.E. or easterly swell is noted.

The *Banshee* saw the *Friendship*, a Siamese vessel, lying dismasted in Lat. $27^{\circ} 2' N.$, Long. $121^{\circ} 52' E.$, on the 5th September. This vessel must have been very near the vortex of the cyclone of the 4th Sept. The Siamese ship *Bangkok Mark* met with the *Texas*, likewise dismasted, in Lat. $26^{\circ} 48' N.$, Long. $120^{\circ} 54' E.$

As might have been expected from the position of Foochow, the gale was felt there in all its violence. During the night of Sept. 3rd it was blowing a gale from north veering to N.N.W. At 8 P.M. the barometer was 29.43; at midnight 29.39. On the 4th September, at 9 A.M. 29.05; 11 A.M. 28.96; at noon 28.88; at 1 P.M. 28.80; 2 P.M. 28.68; and between 3 and 4 P.M. it reached the lowest point, 28.58. The wind was then west, veering to the S.Wd. The storm was at its height between 2 and 4 P.M. The howling of the wind was fearful and its force terrific. Many houses were unroofed and two are said to have been blown down; the largest trees were uprooted. Excepting among the Chinese

craft, no serious disasters occurred to the shipping in the river Min.

H. M. S. *Camilla* was lying at the Pagoda anchorage about 10 miles S.E. from Foochow. On Sept. 4th her barometer at 8 A.M. was 29.09; at noon 28.76, wind W.N.W. force 10. At 2 P.M. wind west, blowing a hurricane with heavy rain, sea breaking over the ship, even in that well sheltered river. At 4 P.M. barometer lowest; wind S.W.; after this time the gale moderated.

The insecure anchorage of Tamsui, at the N.W. corner of the island of Formosa, must have been exposed to the most severe portion of the cyclone. The only information received from there is contained in the following extract from a record kept on board the barque *Whampoa*.

Date.	Ship's Name.	Time.	Barometer.	Wind.
Sept. 3rd	<i>Whampoa</i>	3 P.M.	29.80	N.N.W.
		5 "	29.70	veering
		8 "	29.50	to
		midnight	28.80	W.S.W.
Sept. 4th	"	6 A.M.	slightly rising	and S.W.

The rush of water from the river at Tamsui was so great that the ships were driven from their anchors *against* the wind. Four vessels were at anchor there during the gale. The commander of the *Whampoa*, finding her drifting out with four anchors down, dropped his foresail and beached the vessel. The *Vixen* schooner, and another vessel of the same class, drifted to sea and immediately foundered. The barque *Melenia* drifted, but escaped to sea without damage.

Keelung harbour bears east about 18 miles from Tamsui, measuring across the promontory forming the north end of Formosa. The ships at Keelung must have been in some measure sheltered by this promontory from the western portion of the cyclone. The following brief accounts is extracted from the Log-book and sea protest of the Dutch barque *Jeannette & Cornelia*. During the night of Sept. 3rd a light breeze blew from the north; in the evening the sky became cloudy and the breeze increased. At 8 P.M. the barometer was 29.83; at noon 29.67. In the afternoon the breeze freshened from N.N.E. with heavy rain. In the evening the weather was stormy, and a *higher sea rolled in than had before been experienced in this harbour*, although a far

more severe gale occurred there on the 16th of July 1857. At 8 P.M. barometer 29.37; 10 P.M. 29.25; midnight 29.07.

Sept. 4th. After midnight the wind veered to the N.Wd., then to west, and finally at 4 A.M. to S.W. At 2 A.M. barometer 28.90; 4 A.M. 28.84. From midnight until 4 A.M. the gale was strongest. At 5 o'clock the barometer commenced rising, being then 28.87; 7 A.M. 28.97; 9 A.M. 29.09. After 5 o'clock the gale moderated, and in the forenoon a light breeze was blowing from S. to S.S.E. At noon barometer 29.25; 4 P.M. 29.35; 8 P.M. 29.42.

It is an additional proof of the comparatively small diameter of this cyclone and of its slow rate of progress, that while the weather was moderate at Keelung on the evening of Sept. 2nd, the *Mansart* only 50 miles distant had a strong gale from the N.Wd.

From the data obtained we may form a tolerably accurate estimate of the storm's rate of progress, and of the direction in which it was advancing. Assuming the *Water Witch* to have been in the vortex at midnight Sept. 3rd, and the *Cadiz* to have been in the same predicament at 11 A.M., on the 4th, we can lay down these two positions of the centre. Drawing a line through them and producing it until within the shortest distance from Foochow, we thus ascertain the position of the centre when nearest to that city. The time when the centre arrived at this position is shown by the barometers, which reached their lowest point at three P.M. of Sept. 4th. Measuring the distance between the two positions of the centre at midnight on the 3rd, and at 3 P.M. on the 4th, we find that the storm has travelled 150 miles on a W. by N. $\frac{1}{2}$ N. course in 15 hours, or at the rate of 10 miles an hour. The same rate of progress results from taking the mean of the following estimates:—

Rate of progress as measured	
Between <i>Water Witch</i> and <i>Cadiz</i> ,	7 miles an hour.
Between <i>Cadiz</i> and Foochow,	13 " "
Between <i>Water Witch</i> and Foochow ...	10 " "
	<hr/> 3/30

10 as the mean of the whole.

Having thus noticed a few of the observations made during this severe cyclone, we may briefly recapitulate its most interesting features. We find it to be a distinctly marked revolving storm, whose centre passed across the Formosa Channel between the

26th and 27th parallels of north latitude. Its course was nearly W.N.W. and its rate of progress averaged 10 miles an hour. Beyond the *Antonita* to the north, and beyond the *Lanrick* to the south, the winds were comparatively moderate. That portion of the cyclone, where the wind exceeded a strong breeze in force, cannot be considered as more than 300 miles in diameter.

How beautifully is the truth of the Law of Storms confirmed by the winds noted on board the *Antonita*, *Lanrick*, and *Mansart*. On the northern verge of the storm's circumference we see the *Antonita* riding in Lotsin bay, the wind blowing a tyfoon from the eastward; at the southern limit, about 200 miles from the *Antonita*, the *Lanrick* has a severe gale from the westward. East of Formosa the *Mansart* is flying before the gale, marking its rotatory character by her semi-circular track; while in the centre of the circle, on whose circumference these vessels are placed, the dismasted *Friendship* and the *Water Witch* and *Cadiz* are lying helpless in the vortex of the cyclone!

However incomplete may be the information, collected in the preceding pages with respect to the gales whose phenomena we have been considering, it is sufficient to prove that more detailed observations would be of the utmost service in extending our knowledge of the cyclones so prevalent on the coast of China, especially between Foochow and Shanghai, and in the Formosa Channel.

Two phenomena, in some measure connected with great storms, have yet to be noticed.

Nearly all severe gales are accompanied by a considerable *rise of water* at the places where they occur. Captain Baylis, commanding the *Folkstone* at Woosung, estimated the rise of the river, on the 7th and 8th of September at about three feet above the highest spring tides. Happily this flood was not sufficiently high to cause any serious damage. In this flat country, so nearly on a level with the waters of the Yang-tse Kiang, a rise of only a few feet might be attended with disastrous consequences, such as have already been mentioned as having occurred during a hurricane in 1833 at the mouth of the Hoogly in the bay of Bengal.

The diminished atmospheric pressure, which is a constant phenomenon during heavy gales, is probably the chief cause of the rise of water. A fall of one inch of mercury denotes a diminished pressure on the surface of the water of half a pound per square

inch; in other words, a load of 72 lbs. is taken off each square foot of water. In addition to this cause, the wind may be blowing on shore and would thus check the ebb and increase the flood tide in rivers like the Yang-tse and Hoogly.

Although St. Helena and Ascension are rarely visited by severe gales, a singular phenomenon is occasionally witnessed at these islands. Heavy rollers suddenly set in from seaward, breaking into a tremendous surf where they reach the shallow water. It has been supposed that these rollers are caused by the swell from distant hurricanes.

The *Julia*, sloop of war, was totally wrecked at Tristan d'Acunha, an island about 1,300 miles S. 15° W. to St. Helena. The rollers suddenly rushed in, and in a few minutes not a vestige of the vessel remained.

The following table copied from Piddington's Horn-Book shows the connexion between the periods at which great storms occur and the sun's motion in declination. In the northern hemisphere the greatest number of hurricanes take place in August and September, while they are most prevalent in the southern hemisphere during the corresponding months of February and March.

Table of the average number of Cyclones in different months of the year, and in various parts of the World.

For what number of years ascertained.	LOCALITY.	AUTHORITY.	MONTHS.											
			January	February	March	April	May	June	July	August	September	October	November	December
123	West Indies,.....	Nautical Magazine,	...	...	...	...	...	1	2	13	10	7	...	...
59	Do.	{ United Service Journal 1843, page 3. }	...	...	...	...	...	1	5	13	13	9	...	...
39	{ Southern Indian Ocean 1809 to 1848, }	{ Reid, Thom, H. Piddington, }	9	13	10	8	4	...	...	...	1	1	4	3
24	{ Mauritius 1820 to 1844, }	{ M. Labatte; Transactions of Royal Society, Mauritius 1849 }	9	15	15	8	...	...	...	...	...	...	...	6
46	{ Bay of Bengal 1800 to 1846, }	H. Piddington, ...	1	...	1	1	7	3	...	1	...	7	6	3
64	{ China Sea 1780 to 1845, }	H. Piddington, ...	...	...	...	...	...	2	5	5	18	10	6	...

Although nearly all parts of the earth are subject to severe storms, the most destructive are chiefly confined to the inter-tropical regions. The West India hurricanes, the storms in the bay of Bengal, and the tyfoons of the Chinese seas are the best known cyclones in the northern hemisphere. South of the equator the investigations have hitherto been limited almost exclusively to the hurricanes in the neighbourhood of the Mauritius, with the exception however of several records which have been made of rotatory gales near New Caledonia to the eastward of Australia; other hurricane regions will no doubt be found as our knowledge of the southern seas becomes enlarged.

A reference to a Mercator's Chart of the world shows a remarkable similarity of position, as regards the trade-winds and the continents towards which they are blowing, between Formosa, the Mauritius, the West India islands and New Caledonia; for the adjacent island of Australia may from its size be considered as a continent. If we examine the paths of the cyclones in both hemispheres, we shall find that the vertices of the parabolic curves which they describe, lie very nearly in the same latitudes as the limits of the trade-winds. Hence it is evident that an intimate connexion exists between rotatory storms and the permanent winds on the surface of the earth. The solar heat and the rotation of the earth, by which the trade-winds and monsoons are produced, are doubtless the chief agents in the production of cyclones and their attendant phenomena.

In speculating upon the causes which give rise to these remarkable meteors we leave the firm basis of ascertained facts for the regions of vague hypothesis. Hitherto we have been dealing with a simple and well-defined law, confirmed by numerous observations; but in our speculations upon the origin and termination of storms, we find few data to guide us, and they bear only in an indirect manner upon the problem we are anxious to solve.

As before mentioned, we know that the sun's action upon the atmosphere, combined with the rotation of the earth, produce those remarkable winds so well known by the appropriate name of trade-winds. The monsoons of the eastern seas are simply trade-winds, whose direction has been modified by the effects of the solar heat on the continents of Asia and Africa.

We can likewise explain the causes which produce many local and partial disturbances in the atmosphere; such, for instance, as

the land and sea breezes, which succeed each other with such beautiful regularity on the coasts of many tropical countries. A fair knowledge has also been obtained of the other aerial phenomena, by which the temperature of the earth's atmosphere is regulated.

The heated air from the equatorial parts of the earth flows in two continuous currents through the upper regions of the atmosphere, towards the north and south poles. These currents carry into higher latitudes the great velocity due to the rapid movement of the earth's surface at the equator. The movement towards the poles, combined with this rapid motion from west to east, produce as their resultant a N.W. wind in the *southern*, and a S.W. wind in the *northern* hemisphere, beyond the limits of the trade-winds.

The velocity of a point rotating at the equator is, in round numbers, 1,000 miles an hour. At latitude 30° it is 860 miles; at 40° , 766; and 50° , 643 miles an hour: varying as the cosine of the latitude. It is therefore easy to understand that a portion of air, with a velocity of 1,000 miles an hour from the west, descending to the earth's surface at latitude 40° , where the velocity is only 766 miles an hour, will have the effect of a westerly wind of about 200 miles an hour. From this we must make a large deduction for friction, resistance of other strata of air, &c; still there is a sufficient residual excess of velocity to account for the prevailing westerly winds in both hemispheres, between the Arctic regions and the trade-winds.

Sir John Herschel appears to consider this circumstance as likely to afford some assistance towards discovering the origin of storms, for he suggests it as worth inquiry "whether hurricanes in tropical climates may not arise from portions of the upper currents prematurely diverted downwards before their relative velocity has been sufficiently reduced by friction on, and gradual mixing with, the lower strata; and so dashing upon the earth with that tremendous velocity which gives them their destructive character, and of which hardly any rational account has yet been given. But it by no means follows that this must always be the case. In general, a rapid transfer either way, in latitude, of any mass of air which local or temporary causes might carry *above the immediate reach of the friction of the earth's surface*, would give a fearful exaggeration to its velocity. Wherever such a mass should strike the earth, a hurricane might arise; and should two such masses encounter in mid air, a tornado of any degree of

intensity on record might easily result from their combination." *Herschel's Astronomy, Note, page 149.*

The sudden contact with the earth of a current of air retaining the immense velocity due to a low latitude might produce a wind of fearful violence; but we still have to account for the rotatory and progressive motions which characterize all severe storms; nor does the present state of our knowledge afford any satisfactory explanation of these phenomena.

It is remarkable that rotatory motion should be so general throughout the universe. The planets and their satellites revolve round the sun and rotate upon their axes at the same time. The sun itself has a rotatory motion. The double stars revolve round each other; and the movement of the whole solar system in space is probably a vast circular motion round some inconceivably remote central body.

A new theory, now attracting notice, supposes every molecule of matter to be in a state of rotation, and heat and electricity to be peculiar conditions of these revolving atoms. How startling is the idea that matter, which we are accustomed to regard as solid, should be composed of innumerable rotating particles, infinitely near to each other yet never touching, all of which are whirling round and round with marvellous rapidity.

Small *whirlwinds*, which have been termed whirlpillars, are frequently seen at sea, where they produce water-spouts. At times they have been noticed revolving within the circumference of the great cyclones. But these peculiar gyrations of the atmosphere are most common on the hot arid plains of India and on the sandy deserts of Africa, where they have been seen chasing each other in rapid succession, overturning tents and carrying up in their vortices any light articles they may meet in their path. It is not impossible that these small whirlwinds may, when better understood, afford a key to the solution of the perplexing problem we are considering.

Professor Daniel considers an atmosphere floating over a heated plain to be in a state of unstable equilibrium. In other words, an atmosphere in this state is liable to be disturbed and set in motion by the slightest cause. The dense surrounding air will at times break in and produce horizontal revolutions and vortices of greater and less extent, such as are common in all fluids when acted on by concurring horizontal and vertical forces. This account of the

manner in which these strange whirlwinds are produced may be perfectly true, and cyclones may in some degree resemble them; yet there is one fatal objection to the theory that cyclones and whirlpillars result from the same causes. Cyclones invariably rotate in one particular direction in each hemisphere, while the whirlpillars have been seen to revolve both ways in the same hemisphere. We must therefore reject this explanation of the manner in which revolving storms originate, as it does not account for all their observed phenomena.

Sir W. Reid has suggested that electricity may be the original cause of rotating storms. This peculiar condition of matter, for such it is now presumed to be, plays so important a part in the economy of nature, that it would be rash to deny the possibility of its being the agency by which storms are produced. Yet we can scarcely feel confident that the electrical phenomena exhibited during heavy gales are not effects rather than causes. May not the disturbance of the atmosphere approximate clouds charged with different electricities, and thus give rise to the display of intense electrical action?

In support of his views, Sir W. Reid mentions a remarkable coincidence, which in some measure confirms the supposition of a connection existing between hurricanes and Electricity or Magnetism.

The islands of Mauritius and St. Helena lie nearly in the same latitude, yet the neighbourhood of the former island is a noted hurricane region, while at St. Helena even a gale rarely occurs. Now it appears that at St. Helena the magnetic intensity of the earth is a minimum. In addition to this fact, the meridians which pass through two of the four magnetic poles likewise pass through the Chinese sea and near the Caribbean sea, the chief localities of tyfoons and hurricanes; and in these regions the earth's magnetic intensity is most strongly displayed.

Without pursuing these speculations any farther, enough has been shown to prove the importance of recording all meteorological observations. The commander of every vessel sailing on the wide ocean has frequent opportunities of adding to the information already collected; and from no seafaring men would recorded observations be more valuable than from captains of vessels trading on the coast of China between Hongkong and Shanghai.

The sea to the eastward of Formosa, lying directly in the track of vessels sailing between Australia and the north of China, has

hitherto been little explored. The western limit of the trade-wind blowing across the Pacific must be in this part of the ocean; and in this vicinity the cyclones felt on the coast of China take their origin. Observations from this portion of the eastern seas must therefore bear a high value, as tending to dispel the obscurity which at present overshadows the sources whence revolving storms arise.

Although we may never fully comprehend the laws of meteorology, it cannot be doubted that the more our knowledge respecting storms is extended, the greater will be the security to ships and their cargoes. The seaman who is acquainted with the Law of Storms is doubly armed against their violence. He can generally avoid the most severe portion of the hurricane or typhoon, and he may at times even make it subservient to help him on his voyage. This law, which has proved so eminently useful to all whose business lies upon the great waters, was discovered by the diligent collection of observations made at sea and recorded in ships' log-books. Let no seaman therefore suppose that his observations are valueless, but let him rather add his experience to the common stock of meteorological knowledge. For it is only by such means that the enquiry so deeply interesting to every seafaring man can be prosecuted, and that we can hope to ascertain the great, but as yet undiscovered, laws by which the winds are governed.

In every branch of science increased knowledge leads to the conviction that the laws which control the phenomena of nature are few in number and simple in their character. Chemical research has reduced the elementary substances to a small number, which will probably be still farther diminished the more diligently that science is cultivated. Electricity and magnetism have been proved to be identical, and there are indications that heat and light result from a similar cause. Our astronomical knowledge proves that one all-pervading influence, which we term gravitation, gives stability to the system of the universe.

Throughout the material and likewise in the moral world we see evidences of unity of design, carried out by simple and immutable laws. To the discovery of these laws our best endeavours should be directed; an object which can only be attained by observing and carefully recording the phenomena around us. In no science are observations more easily made than in meteorology.

Complex as the phenomena of that science appear to us at present, we have seen that the law which one portion of them obeys has already been discovered. We may therefore expect that in due time the whole subject will be elucidated. When future philosophers aided by diligent observers shall have accomplished this task, the laws which govern the winds and the waves will prove to be as certain in their operation, as those by which the movements of heavenly bodies are regulated. The seaman exposed to the terrific fury of a hurricane fails to perceive the utility of these devastating whirlwinds. Yet we cannot doubt that they have been ordained to serve some wise and useful purpose.

Could we but scan the wonders of nature with the eye of omniscience, we should cease to marvel at these seeming anomalies. For we should then understand what we can now only surmise, that cyclones, like other apparent evils, are not capricious interruptions of the harmony of nature, but essential portions of the grand scheme of Divine Beneficence.

“All nature is but art, unknown to thee ;
All chance, direction, which thou can’st not see ;
All discord, harmony, not understood ;
All partial evil, universal good.”



ARTICLE III.

COINS OF THE 大清 TA-TS'ING,
OR PRESENT DYNASTY OF CHINA.

BY MR. A. WYLIE.

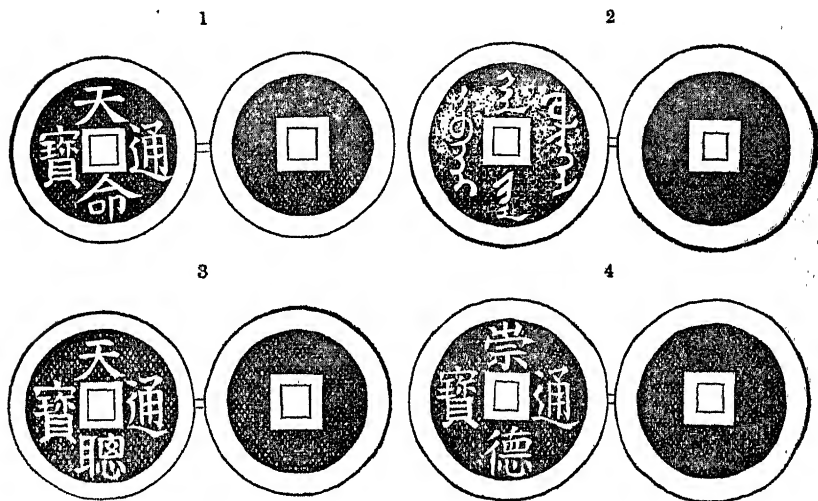
Laid before the Society November 17th 1857.

THE following catalogue of Coins cast in China during the domination of the Manchu dynasty does not profess to be complete, but it is believed the number omitted is inconsiderable. The greater part of the cuts are copies from actual specimens; some of the extra-legal coins are from representations given in the 選青小牋 *Seuèn ts'ing seàu ts'ien*, "Numismatic Memoranda"; a very few are given from detailed descriptions in the 錢幣考 *Ts'ien pé k'au*, "Researches on Coins"; and some few others from an unpublished manuscript entitled 錢譜提綱 *Ts'ien p'ò t'e kang*, "Essence of Numismatic Treatises." The notes have been for the greater part checked off by the 大清會典事例 *Tá ts'ing hui'ien ts'ien szé lé*, "Official details relating to the Statistics of the T'á-ts'ing dynasty;" which contains a large accumulation of facts regarding the imperial coinage. It is well known that in the different issues of the same coin from year to year, at the same mint even, there is great variety, both in the diameter and thickness, and also in the quality and colour of the metal. Moreover, besides the government works, illegal coinage is always carried on to a great extent, notwithstanding the severe penalties for the offence which exist on the statute book. The great variety being thus further supplemented, any attempt to form a complete collection or to classify the existing specimens would prove a vain endeavour. The following list merely includes one of each kind as distinguished by the legends; to have given the varieties of each, even that are in common circulation, would have increased the number many fold.

We find a greater regularity in the coins issued from the Ho6-po6 mint, these being intended as models for the empire, but differences are observable among them also; however, nine-tenths of a Chinese inch may be taken as about the standard diameter, and it will be found that the variations either in excess or deficit, except within the last two reigns, do not exceed a twentieth part of an inch.

In 1644, the first year of Shún-che, the weight fixed upon for the cash was 1 *tseen*. The following year, it was increased to 1 *tseen* 2 *fun*, and later in the same year $\frac{1}{2}$ *fun* more was added. In 1654 the standard weight was 1 *tseen* 1 *fun* 5 *le*. In 1657 the weight was fixed at 1 *tseen* 4 *fun*. In 1684 the weight was altered to 1 *tseen*. In 1702, the coinage of 1657 was taken as the model, and the weight again fixed at 1 *tseen* 4 *fun*. In 1734 the weight was altered to 1 *tseen* 2 *fun*.

The alloys used have varied greatly, according to the exigencies of the time and place, but the authorized proportions may be generally stated, from the commencement of the dynasty till about 1722, as,—copper $\frac{3}{5}$, zinc $4\frac{1}{2}$, lead $6\frac{1}{2}$, tin 2. After that time, the composition consisted of equal parts of copper and zinc. The official statement for recent times has not been obtained.



Nos. 1 and 2 were coined by 太祖 T'aé tsod, the founder of the now reigning Manchu dynasty, about the time of his installment as prince of the nation in 1616.

The superscription on No. 1 is, at the top and bottom, 天命 *T'ên ming* "Heavenly Mandate," that being the national designation adopted for his reign; on the right and left sides, is *t'ung padu* "current coin;" making together "Current coin of the Heavenly Mandate (period)."

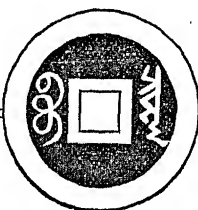
No. 2 is the counterpart of the preceding, in the Manchu character, giving a specimen of the same in the partially-formed state at which it had then arrived. It is read in the order—left, right, top, and bottom,—*Aphai fulingga han tziha* "Imperial coin of the Heavenly Mandate (period)."

No. 3 was coined on the accession of the succeeding monarch 太宗 *T'ái tsung*, who ascended the throne in 1627. The characters at the top and bottom are 天聰 *T'ên ts'ung* "Heavenly Intelligence," that being the newly-adopted national designation; the two side characters are the same as on 1,—*t'ung padu*, giving as the full inscription, "Current coin of the Heavenly Intelligence (period)."

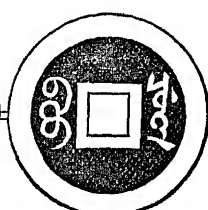
No. 4 is another coin of the same prince, bearing the characters 崇德 *Ts'ung tih* at the top and bottom, signifying "Eminent Virtue," that being the new national designation adopted in 1636, when *T'ái tsung* was acknowledged emperor. The full inscription reads,— "Current coin of the Eminent Virtue (period)."

These four coins are without inscription on the reverse.

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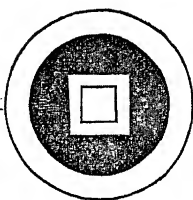


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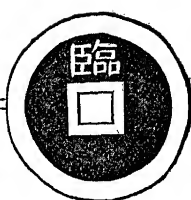


* I find it stated in the *Ts'ên pé k'adu*, that there was a large cash coined during this term, with a Manchu reverse, signifying "Coin of the Intelligent Emperor."

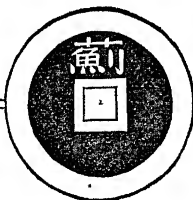
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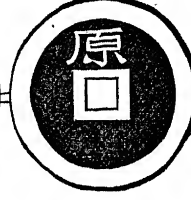
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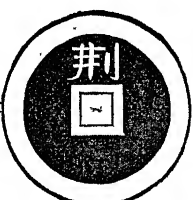
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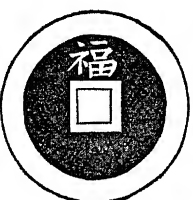
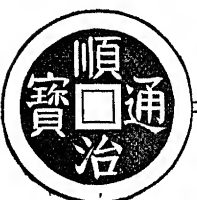
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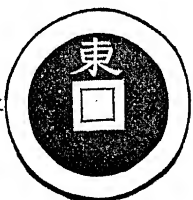
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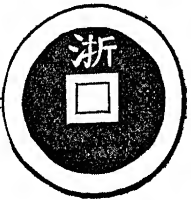
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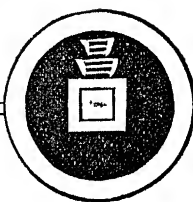
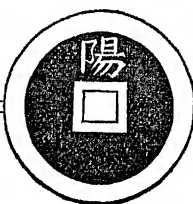


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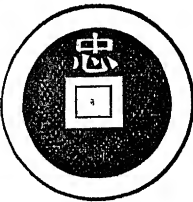
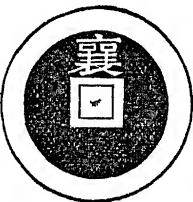
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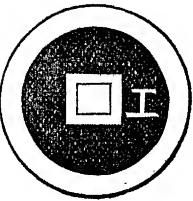
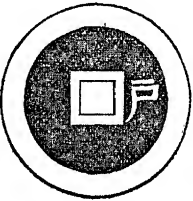
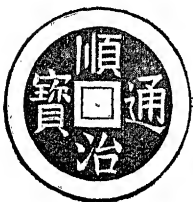
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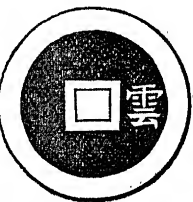
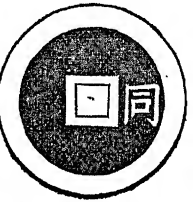
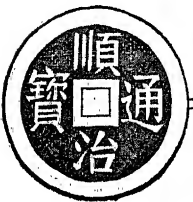
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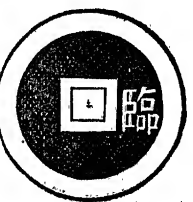
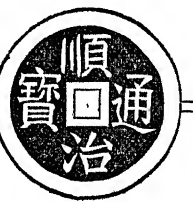
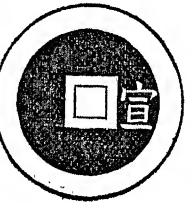
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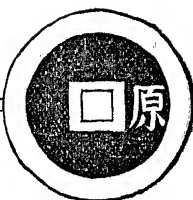
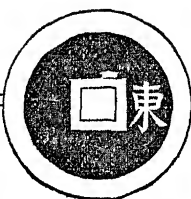
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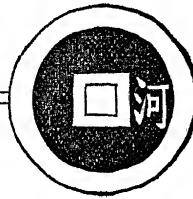
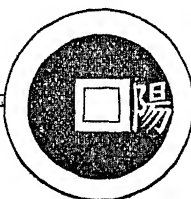
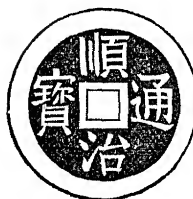
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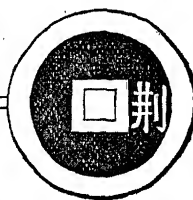
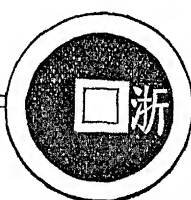
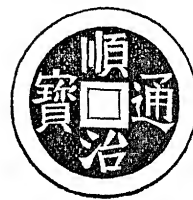
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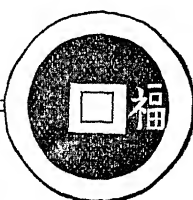
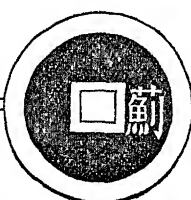
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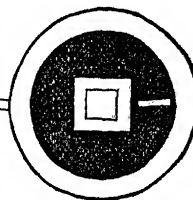
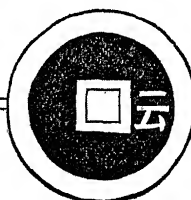
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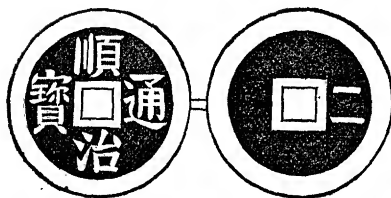


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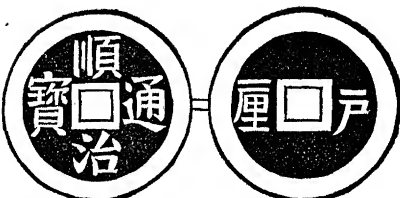
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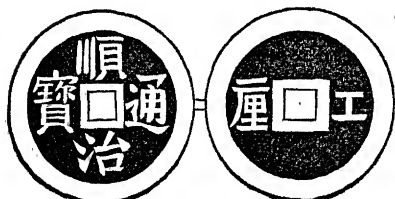
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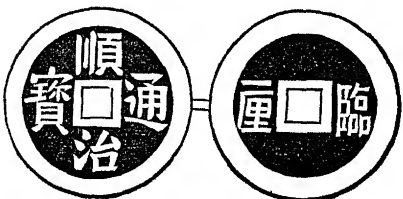
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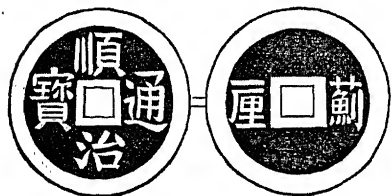
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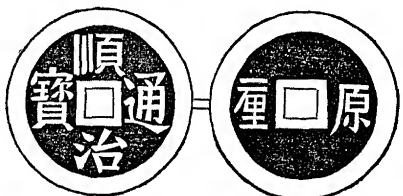
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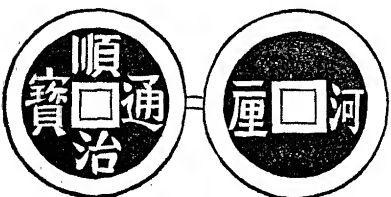
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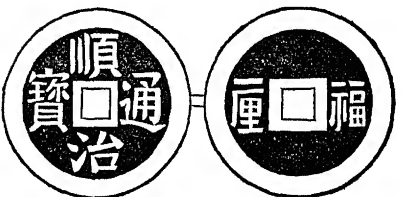
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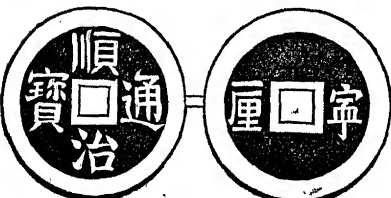
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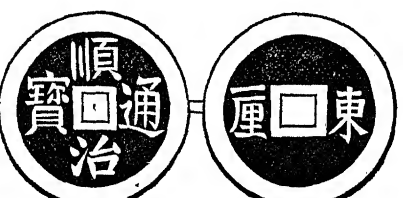
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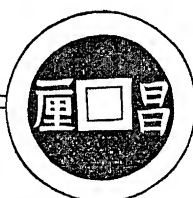
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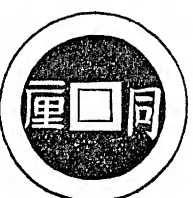
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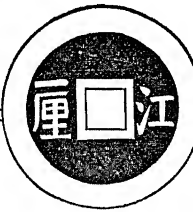
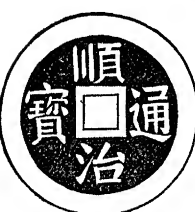
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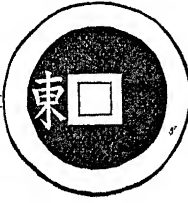
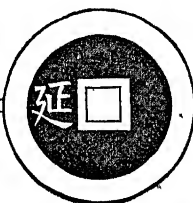
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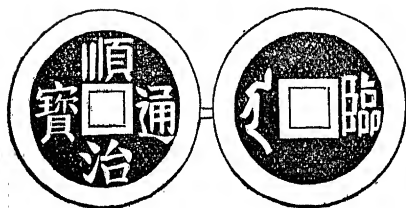


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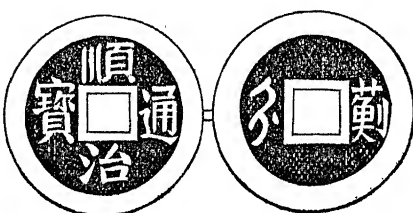
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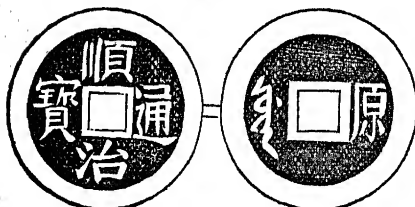
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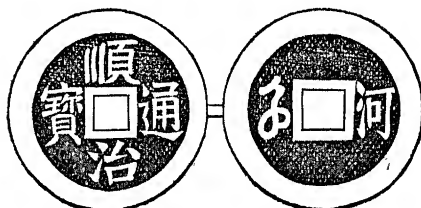
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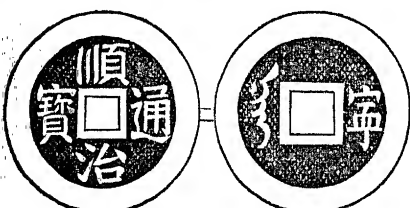
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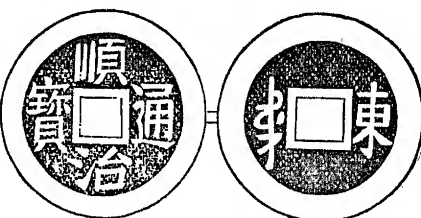
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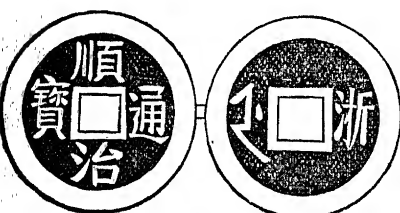
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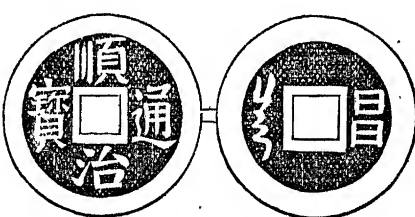
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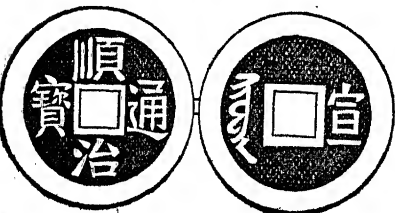
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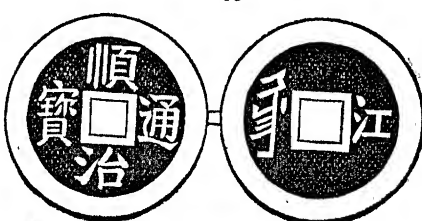
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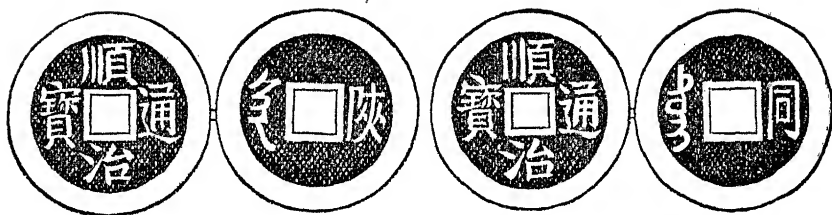


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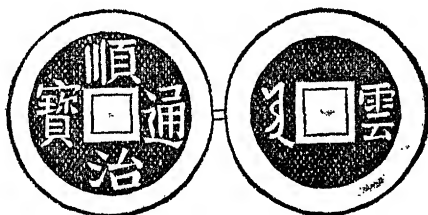


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The above sixty-five coins were issued during the reign of 世祖 Shé tsò, the first of this dynasty who ruled over China; they all bear the same inscription on the obverse,—順治 *Shún che*, "Compliant Government," being the national designation adopted for that prince's reign, which gives the superscription in full,—*Shún che t'ung pao* "Current coin of the Compliant Government (period)."

No. 5 was coined in 1644, the first year of the emperor's reign. This was issued from the mint attached to the 戶部 *Hóo póo*, "Board of Revenue" at Peking, and bears the inscription in Manchu characters,—*Pau tsionan*, being the transcript of the two Chinese characters 寶泉 "Fountain head of the Currency." The money from this mint served as a model for the various provincial coinages.

No. 6 was issued from the mint attached to the 工部 *Kung póo*, "Board of Works." The reverse has the inscription in Manchu,—*Pau yunan*, being the transcript of the two Chinese characters 寶源 "Source of the Currency."

No. 7 has a plain reverse. There are a number of coins of the Shún-che period like this, without any indication of the time when, or the place where, they were cast; they are said to have been issued about the commencement of the reign.

No. 8 has the character 臨 *Lín*, for Lín-ts'ing, a departmental city in Shan-tung, where a mint was opened in 1644.

No. 9 has the character 薊 *Ké*, for Ké-chow in Ch'ih-lé, where a mint was opened in 1644.

No. 10 has the character 原 *Yuén*, for T'aé-yuén in Shan-se, where a mint was opened in 1645.

No. 11 has the character 荆 *King*, for King-chow in Hoô-pih, where a mint was opened in 1646.

No. 12 has the character 河 *Hô*, for Hô-nân, a mint having been established at the capital of that province in 1647.

No. 13 has the character 福 *Fuh*, for Fuh-chow in Fuh-kéen, where a mint was opened in 1649.

No. 14 has the character 寧 *Níng*, for Níng-po, where a mint was established in 1649.

No. 15 has the character 東 *Tung*, for Shan-tung, in which province a mint was established in 1649.

No. 16 has the character 浙 *Che*, for Che-kéang, at the capital of which province a mint was opened in 1649.

No. 17 has the character 陽 *Yáng*, for Yáng-hô in Shan-se, where a mint was opened in 1649.

No. 18 has the character 昌 *Ch'ang*, for Wod-ch'ang the capital of Hoô-pih province, where a mint was established in 1650.

No. 19 has the character 襄 *Seang*, for Seang-yâng in Hoô-pih, where a mint was established in 1650, and stopped in 1652.

No. 20 has the character 忠 *Chung*, the application of which is not clear. There are two cities of this name; Chung-chow in Szé-ch'uen, and Chung-chow in Kwàng-se.

The preceding thirteen coins all have the character on the reverse above the aperture. On the following seventeen, it is placed on the right.

No. 21 has on the reverse the character 戶 *Hoó*, indicating its issue from the mint in connexion with the Hoó-poó.

No. 22 bears the character 工 *Kung* on the reverse, shewing that it is issued from the mint belonging to the Kung-poó. This

and the preceding one were coined during the first decade of the period Shún-che.

No. 23 has the character 同 *T'ung*, for Tá-t'ung in Shan-se, where a mint was opened in 1645. This was removed to Yang-hô in 1649.

No. 24 has the character 雲 *Yün*, for Meih-yün in Ch'ih-lé, where a mint was opened in 1645.

No. 25 has the character 宣 *Seuen*, for Seuen-fòd in Ch'ih-lé, where a mint was opened in 1649.

No. 26 has 麟 *Lín*, for Lín-ts'ing in Shan-tung.

No. 27 has Tung, for Shan-tung.

No. 28 has Yuén, for T'aé-yuén in Shan-se.

No. 29 has Yang, for Yang-hô in Shan-se.

No. 30 has Hô, for Hô-nán.

No. 31 has Che, for Che-k'ang.

No. 32 has King, for King-chow in Hoô-pih.

No. 33 has Ké, for Ké-chow in Ch'ih-lé.

No. 34 has Fuh, for Fuh-chow.

No. 35 has the character 云 **Yün*, literally "To say," but the meaning of it on the coin is doubtful.

No. 36 has the character — *Yih* "One," which is also of uncertain meaning.

No. 37 has the character 二 *Urh* "Two," the meaning also uncertain.

In 1653, orders were issued for an improvement in the workmanship of the coinage, the various mints receiving instructions to issue a coin with the two character — 厘 *Yih lè* on the reverse, accompanied by the names of the respective mints; on which occasion the coins Nos. 38 to 54 inclusive were cast, each having the characters *Yih lè* "One le" † on the left side of the reverse, indicating its value in silver. The right sides have the local names, as follows:—

No. 38, *Hoó*, for Hoó-poó, "the Board of Revenue."

* As this is the original form of the character 雲, it may possibly be intended for Meih-yün in Ch'ih-lé.

† A *le* is the one-thousandth part of a tael (*läng*), or Chinese ounce.

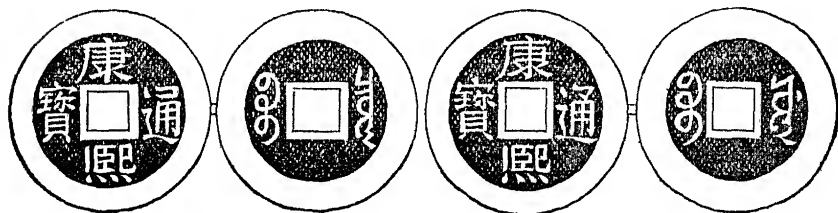
- No. 39, *Kung*, for Kung-poó, "the Board of Works."
 No. 40, *Lín*, for Lín-ts'ing.
 No. 41, *Ké*, for Ké-chow.
 No. 42, *Yuén*, for T'aé-yuén.
 No. 43, *Hó*, for Hó-nân.
 No. 44, *Fuh*, for Fuh-chow.
 No. 45, *Níng*, for Níng-po.
 No. 46, *Tung*, for Shan-tung.
 No. 47, *Che*, for Che-k'ang.
 No. 48, *Yáng*, for Yáng-hó.
 No. 49, *Ch'ang*, for Wò-ch'ang. Cast in 1653.
 No. 50, *Yán*, for Meih-yán.
 No. 51, *T'ung*, for Tá-t'ung. Cast after the reopening of the mint in 1656.
 No. 52, *Seuen*, for Seuen-fòd.
 No. 53 has 江 *K'ang*, for K'ang-níng (Nanking).
 No. 54 has 陝 *Shén*, for Shén-se province.
 The two following coins are the only ones that have a single Chinese character on the left of the reverse.
 No. 55 has the character 延 *Yen*, for Yen-suy in Shén-se, where a mint was opened in 1644, and stopped in 1648.
 No. 56 has the character 東 *Tung*, probably for Kwàng-tung, where a mint was established in 1647.
 Nos. 57 to 69 inclusive, all bear the name of the mint on the right of the reverse in Chinese, with the same word in the Manchu character on the left, as follows:—
 No. 57, *Lín*, for Lín-ts'ing.
 No. 58, *Ké*, for Ké-chow.
 No. 59, *Yuén*, for T'aé-yuén.
 No. 60, *Hó*, for Hó-nân.
 No. 61, *Níng*, for Níng-po.
 No. 62, *Tung*, for Shan-tung.
 No. 63, *Che*, for Che-k'ang.
 No. 64, *Ch'ang*, for Wò-ch'ang.
 No. 65, *Seuen*, for Seuen-fòd.
 No. 66, *K'ang*, for K'ang-níng.
 No. 67, *Shén*, for Shén-se. This and the ten preceding were issued in 1653.

No. 68, *T'ung*, for Tá-t'ung; the mint having been removed from Yáng-hó to this place in 1656, this coin was issued the same year.

No. 69 has 雲 *Yün*, for Yün-nán, in Chinese and Manchu; a mint was opened in this province in 1660, when this coin was issued.

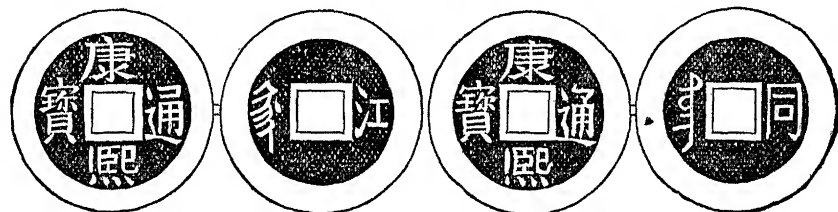
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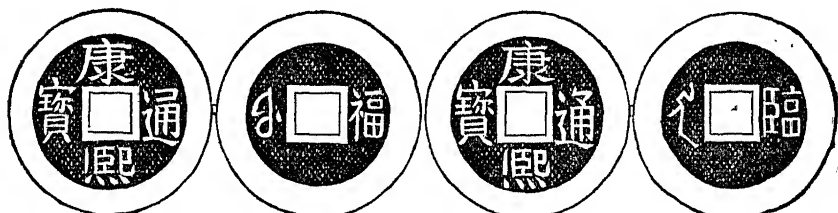
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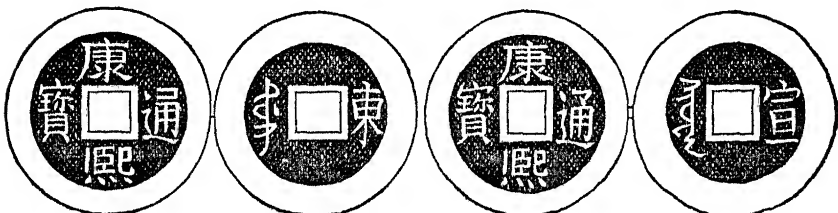
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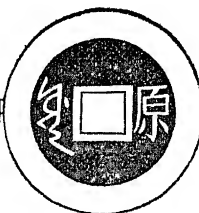
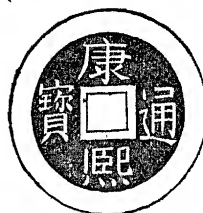


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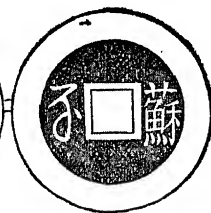
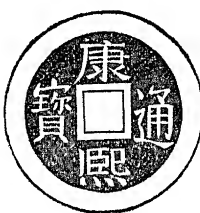
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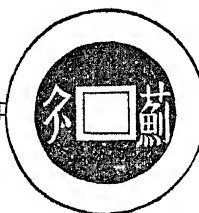
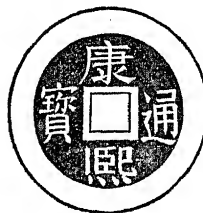
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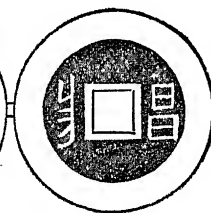
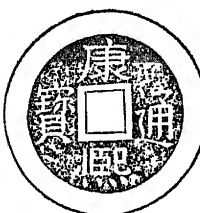
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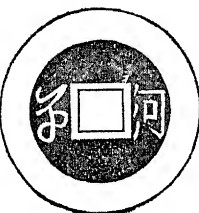
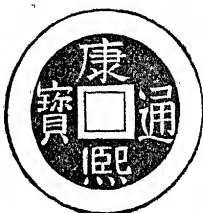
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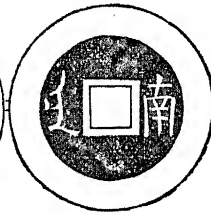
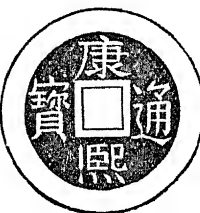
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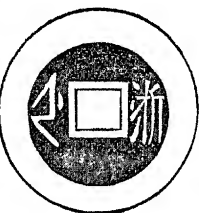
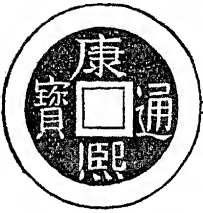
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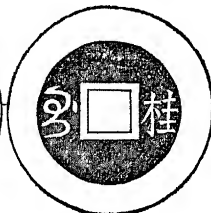
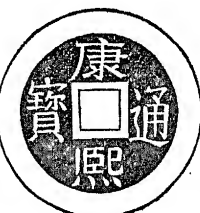
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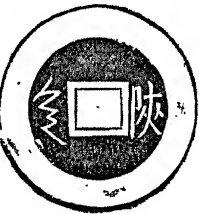
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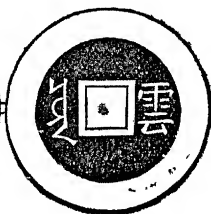
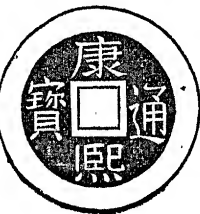
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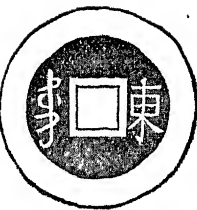
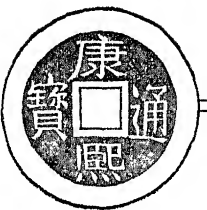
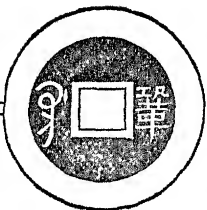
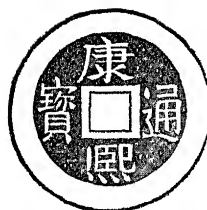


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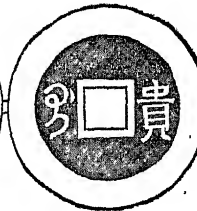
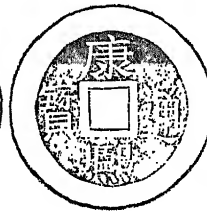
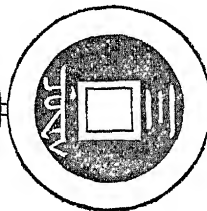
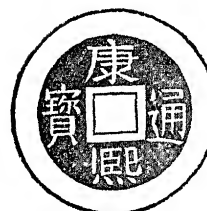
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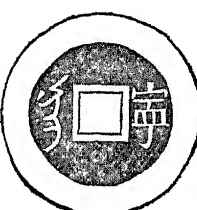
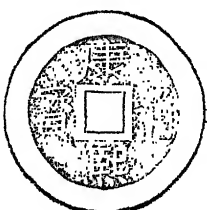
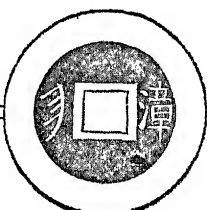
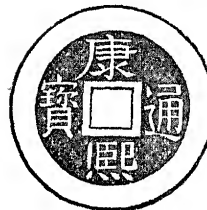
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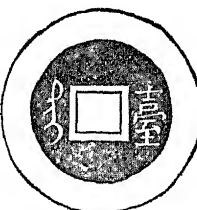
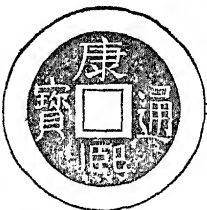
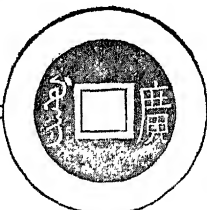
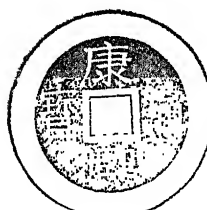
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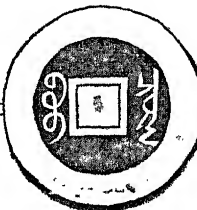
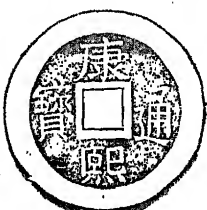
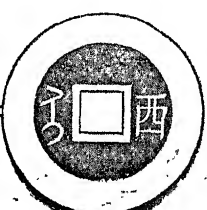
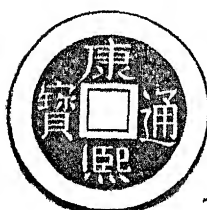
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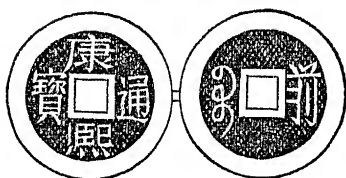
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On the death of the emperor in 1661, the national designation adopted for 聖祖 Shíng-tsoò his successor was 康熙 *K'ang he* "Peaceful Lustre"; when a new obverse was cut, with the superscription *K'ang he t'ung padu*, "Current coin of the Peaceful Lustre (period)"; which is the device on the face of all the above twenty-nine coins.

No. 70 was cast at the mint of the Board of Revenue in the year of the accession, as a model for the provincial mints. The reverse has the inscription in Manchu,—*Pau tsiowan* "Fountain head of the Currency."

No. 71 was issued from the mint of the Board of Works, and has the inscription on the reverse,—*Pau yuwan* "Source of the Currency," in Manchu characters.

In 1663, all the provincial mints, except that of Nanking, were closed, and were again opened in 1667. The following twenty-five coins all have the local names on the reverse, in the Chinese and Manchu characters.

No. 72 has *K'ang*, for K'ang-níng (Nanking). This mint seems to have been in operation from 1662, throughout the K'ang-he period.

No. 73 has *T'ung*, for Tá-t'ung in Shan-se, a mint having been in operation in that city from 1667 till 1670.

No. 74 has *Fuh*, for Fuh-k'een. This coin was cast at the capital of that province, where a mint was re-established in 1667, and continued in operation till 1670.

No. 75 has *Lin*, for Lín-ts'ing; at which city a mint was in operation from 1667 till 1675, when it was closed.

No. 76 has *Tung*, for Shan-tung. This was issued at the capital city of that province, where a mint was in operation from 1667 till 1670, when it was closed.

No. 77 has *Seuen*, for Seuen-fòd. This mint was in operation from 1667 till 1671, when it was finally closed.

No. 78 has *Yuén*, for T'aé-yuén; where a mint was in operation from 1667 till 1670.

No. 79 has *Soo*, for Soo-chow in Kēang-nân. A mint was established at this city in 1667, and closed in 1670.

No. 80 has *Ké*, for Ké-chow. Coining was carried on at this mint from 1667 till 1671, when the establishment was finally closed.

No. 81 has *Ch'ang*, for Wòd-ch'ang. A mint was in operation at this city from 1667 till 1670, when it was closed. It was reopened in 1687 and again closed in 1699.

No. 82 has *Hô*, for Hô-nân. This coin was issued at the capital of that province, where a mint was in operation from 1667 till 1670.

No. 83 has 南 *Nân*, for Hoó-nân. A mint was established at the capital of that province in 1667, and continued in operation till 1700, when it was closed.

No. 84 has *Che*, for Che-kēang. A mint was in operation at the capital city of that province, from 1667 till 1674, when it was closed. It was reopened in 1696, and closed again in 1699.

No. 85 has 桂 *Kwei*, for Kwei-lín the capital of Kwàng-se. A mint was in operation in this city from 1667 till 1670, when it was closed. It was reopened in 1679, and again closed in 1681.

No. 86 has *Shén*, for Shén-se. A mint was in operation at the capital of that province, from 1667 till 1670.

No. 87 has *Yün*, for Yün-nân. A mint was in operation at the capital of that province, from 1667 till 1670, when it was closed. It was reopened in 1681, and again stopped for a time in 1689.

No. 88 has 鞏 *Kùng*, for Kùng-ch'ang in Kan-suh province. A mint was established at this city in 1667, and continued till 1670, when it was closed.

No. 89 has 東 *Tung*, for Kwàng-tung. A mint was in operation at the capital of that province, from 1667 till 1670. It appears to have been opened at a later period, and again closed in 1692.

No. 90 has 川 *Ch'uen*, for Szé-ch'uen. A mint was in operation in the capital of that province, from 1667 till 1670.

No. 91 has 貴 *Kwéi*, for Kwéi-chow. A mint was in operation at the capital of that province, from 1667 till 1670.

No. 92 has 漳 *Chang*, for Chang-chow in Fuh-kéen. A mint was established at this city in 1680, which was closed in 1683.

No. 93 has 甯 *Ning*, for Ning-po; this coin having been first cast in that city in 1681.

No. 94 has 廣 *Kwàng*, for Kwàng-tung, the coin having been issued at the provincial city in 1681.

No. 95 has 臺 *Taí*, for Taí-wan (Formosa). A mint was established at this place in 1689, and was stopped in 1692.

No. 96 has the character 西 *Se* "West." This enters into the names of several of the places where mints were established. It is doubtful to which it belongs.

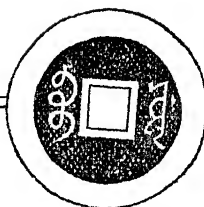
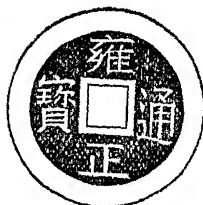
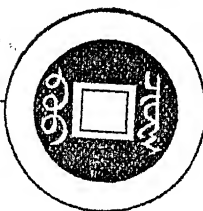
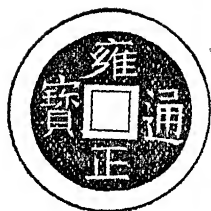
No. 97 is slightly different from the others, in the form of the character 他 on the obverse. This cash is much sought after by the Chinese, who use it for making rings for the finger. The common name is *Lô-hán t'ung ts'ên* "Lo-han cash;" the word *Lô-hán** being the transcript in Chinese characters, of the Sanscrit word *Arhan* "Venerable," the name applied to the eighteen attendants of Buddha, which are frequently seen ranged along the two sides of the principal hall in Buddhist temples. The current tradition is, that while the emperor was intimately associated with the European missionaries, he became imbued with a feeling of contempt for Buddhism, and illustrated this phase in his faith, by having a set of eighteen brass Lo-han images melted down and cast into cash. This brass is said to contain a considerable portion of gold, hence the great demand for the cash. The reverse has the inscription in Manchu,—*Pau tsiowan*, shewing that it is issued from the mint of the Board of Revenue.

No. 98 has on the right of the reverse a character of an uncommon form, which is said to be a contraction of 薊 *Ké*, for Ké-chow. The left has the word *Pau* "Circulating medium," in Manchu. The coin is much less in diameter and thinner than the ordinary cash.

* This is the term in colloquial usage, but the word in full, as given in the Buddhist books, is 阿羅漢 *O-lô-hán*.

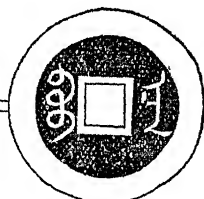
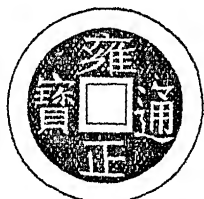
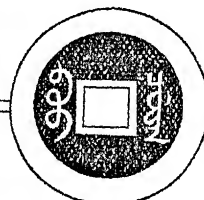
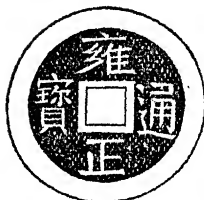
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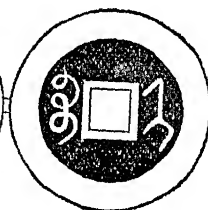
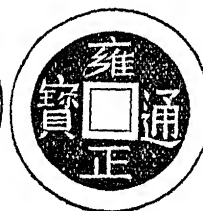
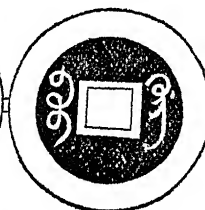
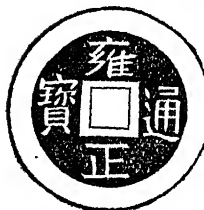
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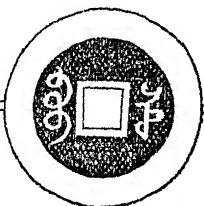
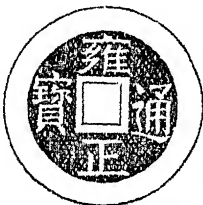
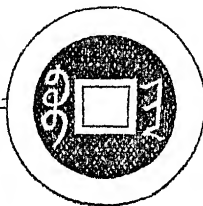
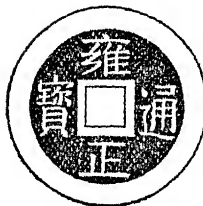
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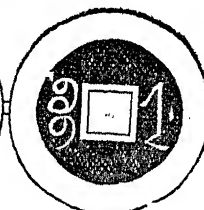
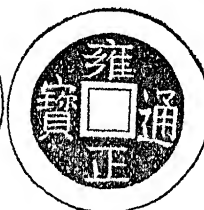
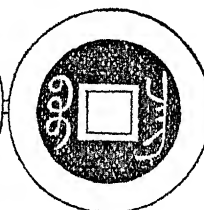
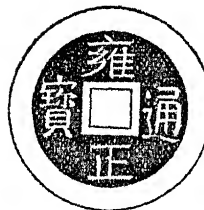
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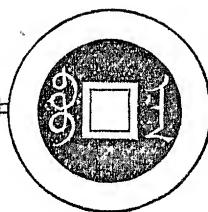
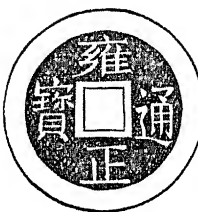
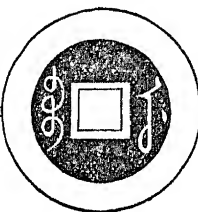
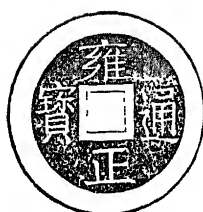
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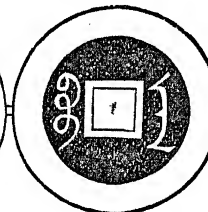
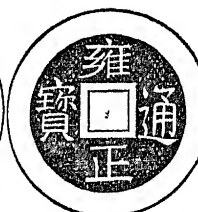
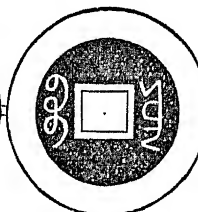
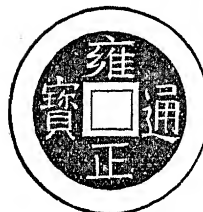
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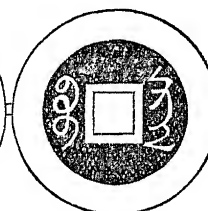
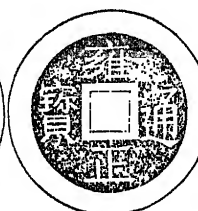
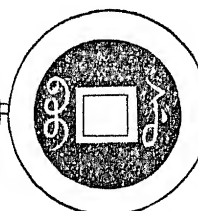
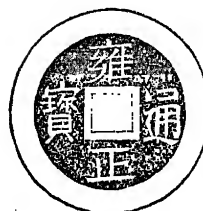
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114



On the death of the emperor Shing tsò in 1722, 雍正 *Yung ching* "Agreeable Rectitude" was adopted as the national designation for the reign of 世宗 *Shé ts'ung* his successor; on which occasion a new obverse was cut, with the inscription—*Yung ching t'ung pau* "Current coin of the Agreeable Rectitude (period)," which was used on all the coins of this reign. From this time all the coins issued in China proper bore inscriptions on the reverse entirely in the Manchu character, except the large cash of the present reign.

No. 99 has on the reverse—*Pau tsiowan* "Fountain head of the currency." It was issued from the Revenue mint in 1722, and was circulated as a model for the various provincial mints.

No. 100 has—*Pau yunnan* "Source of the currency" on the reverse, which shews that it was issued from the mint of the Board of Works.

No. 101 has on the reverse—*Pau Tchuan*, literally “Currency Ch’uen,” i. e. “Szé-ch’uen (branch) of the coinage,” or “Szé-ch’uen mint;” it being a transcript of the Chinese characters 寶川 *Padu Ch’uen*. The Manchu inscriptions always begin with the left side, being read the reverse way of the Chinese. A mint was established in the capital city of Szé-ch’uen in 1722, which was stopped the following year, and was again opened in 1732.

No. 102 has on the reverse *Pau Nan* “Yün-nán mint,” being a transcript of the Chinese 寶南 *Padu Nán*. A mint was established in the capital of that province in 1722, which issued this coin; it was stopped in 1724.

No. 103 has *Pau Gung* “Kung-ch’ang mint,” being a transcript of the Chinese 寶琿 *Padu Kung*. A mint was in operation at this city for a short time in 1726, and again in 1728, where a great quantity of the small cash previously in circulation were melted up, and large ones cast.

No. 104 has *Pau Tzi* “Tse-nán mint,” being a transcript of the Chinese 寶濟 *Padu Tse*. This is the capital of Shan-tung, where a mint was opened in 1729.

No. 105 has *Pau Tsín* “Shan-se mint;” it is a transcript of the Chinese 寶晉 *Padu Tsín*, Tsín being the ancient name of the country now known as Shan-se. A mint was opened in the capital of that province in 1729, which was stopped for a time in 1731, and reopened in 1734.

No. 106 has *Pau Ho* “Hô-nan mint,” a transcript of the Chinese 寶河 *Padu Hô*. A mint was opened in the capital of that province in 1729, and was temporarily closed in 1731.

No. 107 has *Pau Tchang* “Nân-ch’ang mint,” a transcript of the Chinese 寶昌 *Padu Ch’ang*. This is the capital city of Kēang-se, where a mint was opened in 1729, and stopped for a time in 1733.

No. 108 has *Pau Che* “Che-kēang mint,” a transcript of the Chinese 寶浙 *Padu Che*. A mint was opened in the capital of that province in 1729.

No. 109 has *Pau U* “Wòd-ch’ang mint,” a transcript of the Chinese 寶武 *Padu Wòd*. This is the capital of Hòd-pih, where a mint was opened in 1729.

No. 110 has *Pau Nan* "Hoô-nân mint," a transcript of the Chinese 寶南 *Padu Nân*. A mint was opened in the capital of that province in 1729.

No. 111 has *Pau Yôn* "Yân-nân mint," a transcript of the Chinese 寶雲 *Padu Yân*. This was coined in 1729, the provincial mint having been reopened. In 1733, this mint was removed to Tung-ch'uen.

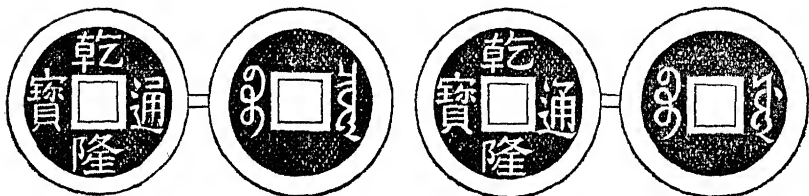
No. 112 has *Pau An* "Gan-hwuy mint," a transcript of the Chinese 寶安 *Padu Gan*. A mint was opened in the capital of that province in 1731.

No. 113 has *Pau Soo* "Këang-soo mint," a transcript of the Chinese 寶蘇 *Padu Soo*. A mint was established in that province in 1734, when this coin was cast.

No. 114 has *Pau Kiyan*, probably the transcript of 寶建 *Padu Këen*, for Fuh-këen.

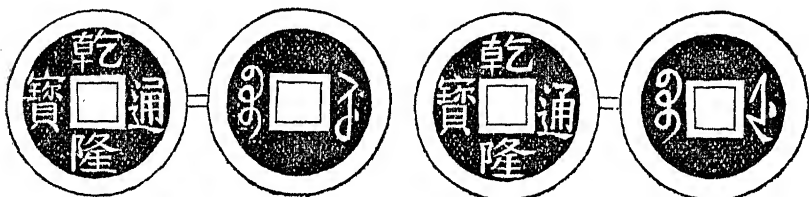
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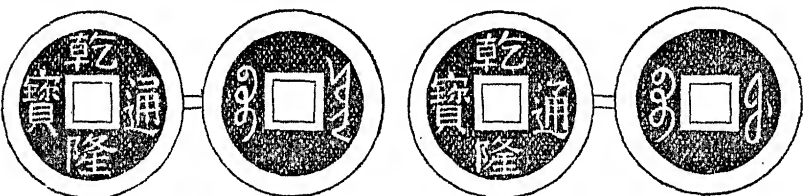
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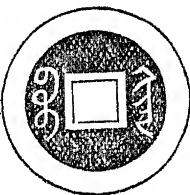
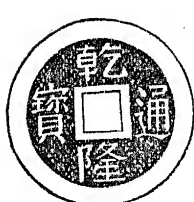


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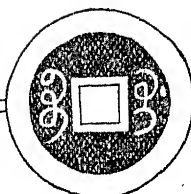
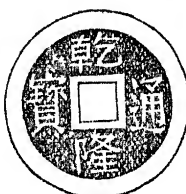
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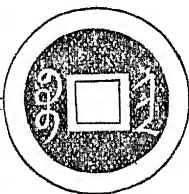
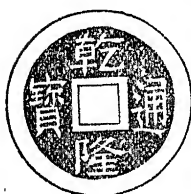
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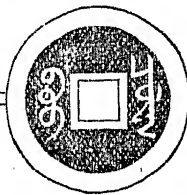
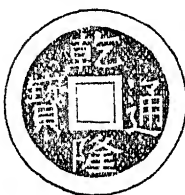
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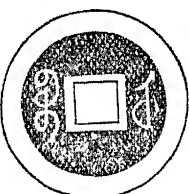
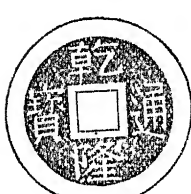
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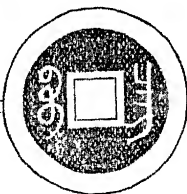
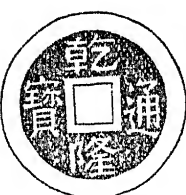
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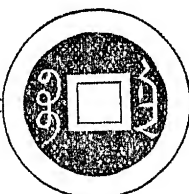
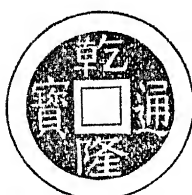
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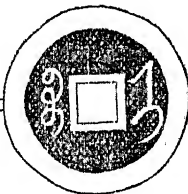
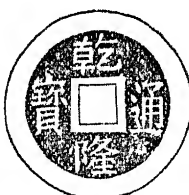
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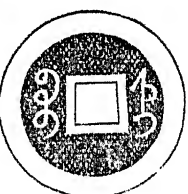
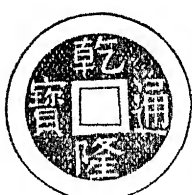
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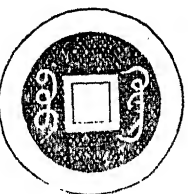
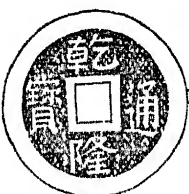
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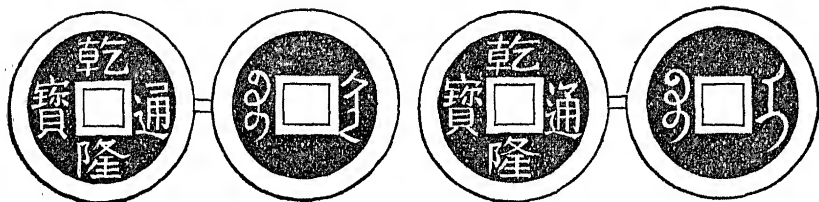


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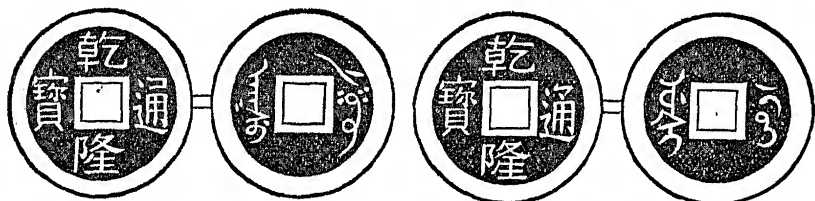
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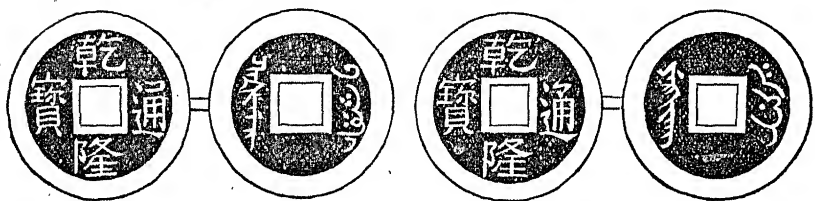
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135

136



The emperor Shé ts'ung died in 1735, and was succeeded by 高宗 Kaou ts'ung, whose reign was designated 乾隆 *K'een lung* "Celestial Support." The above twenty-two coins of this period bear on the obverse the inscription—*K'een lung t'ung padu* "Current coin of the Celestial Support (period)." A model coin was issued from the capital, on the accession, when the various provincial mints all cast coins with a similar face. The following are the respective reverse inscriptions, all in Manchu, down to No. 132 inclusive.

No. 115 has *Pau Tsiowan*, being issued from the mint of the Board of Revenue.

No. 116 has *Pau Yuwan*, being issued from the mint of the Board of Works.

No. 117 has *Pau Su*, being issued from the Soo-chow mint in K'ang-soo province.

No. 118 has *Pau Che*, from the Che-k'ang mint.

No. 119 has *Pau Yōn*, from the Yūn-nān mint.

No. 120 has *Pau Fu* "Fuh-kēen mint," a transcript of the Chinese 寶福 *Paòu Fuh*.

No. 121 has *Pau Kīan*, probably also from the Fuh-kēen mint.

No. 122 has *Pau Gui* "Kwei-līn mint," a transcript of the Chinese 寶桂 *Paòu Kwei*.

No. 123 has *Pau Tzin*, from the Shan-se mint.

No. 124 has *Pau Tchuan*, from the Szé-ch'uen mint.

No. 125 has *Pau U*, from the Wò-ch'ang mint.

No. 126 has *Pau Tchang*, from the Nān-ch'ang mint.

No. 127 has *Pau Nan*, from the Hoò-nān mint.

No. 128 has *Pau Tzi*, from the Tse-nān mint.

No. 129 has *Pau Tz'i* "Ch'ih-lé mint," a transcript of the Chinese 寶直 *Paòu Ch'ih*. A mint was opened at Paòu-tíng in that province in 1745, from which this coin was issued.

No. 130 has *Pau Guwang* "Kwàng-tung mint," a transcript of the Chinese 寶廣 *Paòu Kwàng*. A mint was opened there in 1745.

No. 131 has *Pau Shan* "Shén-se mint," a transcript of the Chinese 寶陝 *Paòu Shén*. A mint was established in that province in 1748.

No. 132 has *Pau I* "E-le mint," a transcript of the Chinese 寶伊 *Paòu E*. A mint was established at the capital city of that region in 1774.

The following four coins were cast for the use of the Moham-
medan tribes of 準噶爾 *Chin-ko-úrkh* "Soungaria," newly sub-
jected by the Chinese emperor, and bear the names of the respec-
tive localities on the reverse. Previous to the subjugation of these
tribes finally in 1759, the coins in use among them were denomi-
nated 勝格 *Tung-kih** and 普爾 *P'òd-úrkh*; 1 *p'òd-úrkh* was

* The 廣輿記 *Kwàng yu kē*, a Chinese geography, in giving an ac-
count of Bengal, states that they have a silver coin named 唐加 *T'áng kē*.
(Book 24, p. 27). This word, Remusat says, is derived from the Turkish or
Mongolian *tamga*, *tamga*, an object marked, as money or seals. (*Mélanges*
Asiatiques. Tome 2, p. 263). We find the same word in various Asiatic
languages. In the 西城同文志 *Se yih t'ung wan ché* "Polyglott

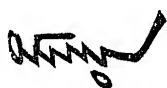
equal in value to 5 Chinese cash, and 1 *tang-kih* to 50 *p'od-urh*. It was the policy of the Chinese to have these collected and melted up, *K'een-lung p'od-urh* coins being substituted for them. Mints were first established there the same year, and the weight of the coins fixed at 2 *ts'een*. A new coinage took place in 1771, when cash of a smaller size were issued.



No. 133 has the name Aksu on the left in Manchu, and the same on the right in Arabic.†

No. 134 has Ushi on the left in Manchu, and right in Arabic.

No. 135 has Kashigar on the left in Manchu, and right in Arabic.

vocabulary of the Western regions," the Soungarian word



[塔瑪噶] *t'a-mà-ho* "a brand for camels" is given in the Kalmuc character. (Book 1, p. 32). The Ouigour language has  *tamcha* "a signet"—Old Tatar  *tamgha*. (Klaproth's Uigurisches Wörterver-

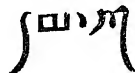
zeichniss, p. 21). Mongolian,



[談哈]

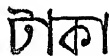
t'an-ha "a seal." (華夷譯語 *Hwa é yih yü* "Mongolian-Chinese vocabulary. Part 1, p. 42). Manchu,  *temgetu* "a token or stamp." (清文鑑 *T'ing wan k'een* "Manchu-Chinese dictionary."

Book 3, p. 9). Tibetan,




[丹葛] *tan-ho* "a seal." (西

番譯語 *Se Fun yih yü* Tibetan-Chinese vocabulary, p. 35). Bengalee,



dhaka "money." (Pearson's Bengalee Exercises, p. 21, &c).

The word has also passed into the Persian and Arabic languages:— *tamgha* "The royal insignia, a royal diploma or charter." (Richardson's English, Persian and Arabic dictionary. Vol. 1, p. 301). From these examples it seems probable that the *Tang-kih* spoken of above is a word of kindred origin.

† This cut is copied from an actual specimen. The superscriptions on the three following are taken from the *Se yih t'ung wan ché*. There were coinages at several other cities in the same country, but they are not mentioned by name in the *Tu-ts'ing hwü y t'een*.

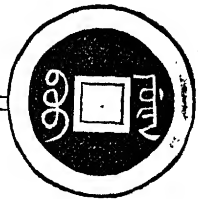
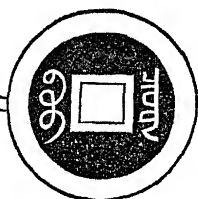
No. 136 has Yerkiyang (*Yarkand*) on the left in Manchu, and right in Arabic.

In 1792, a Chinese silver coinage was issued in Tibet, the obverse bearing the inscription 乾隆寶藏 *K'een lung padu Tsang* "Tibetan branch of the K'een-lung coinage." The reverse had the same inscription in the 唐古忒 *T'ang kod t'ih* "Tanguth" or "Tibetan" character. The date of the coinage was put on the border.

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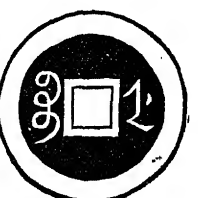
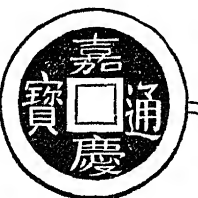
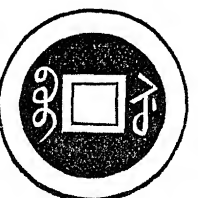
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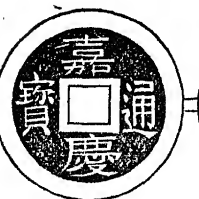
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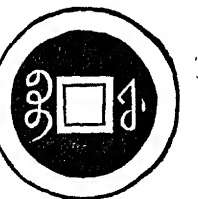
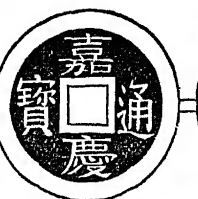
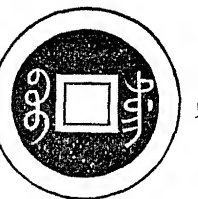
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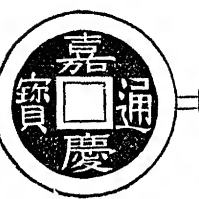
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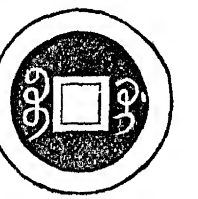
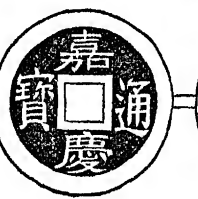
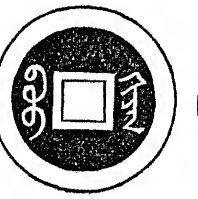
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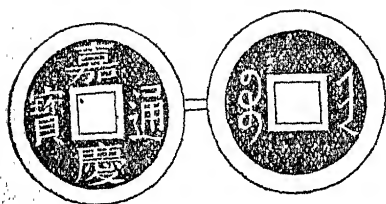
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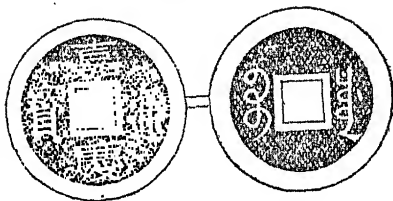
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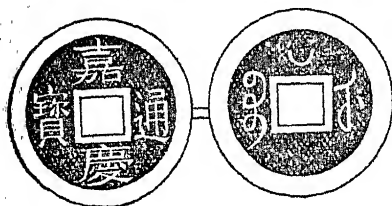
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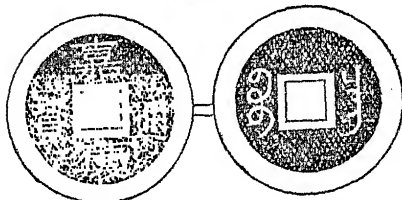
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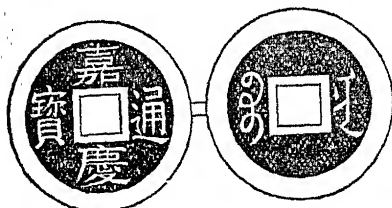
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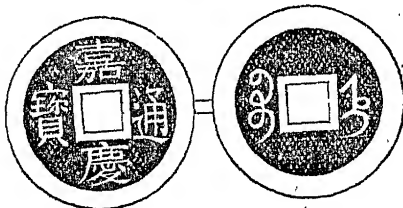
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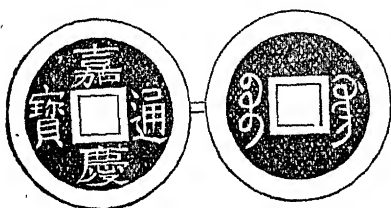
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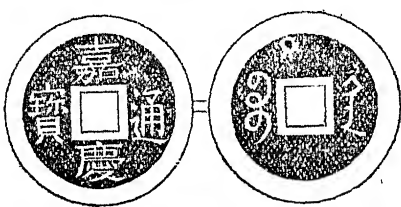
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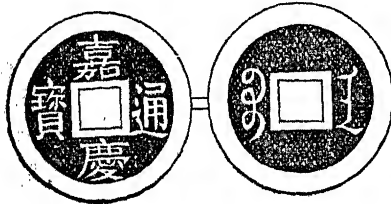
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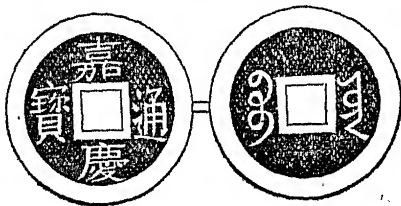
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On the abdication of the emperor Kaou tsung, the national designation adopted in 1796 for his successor 仁宗 Jin tsung was 嘉慶 *K'ia k'ing* "Increasing Felicity;" when a new obverse was cut, with the superscription *K'ia k'ing tung padu* "Current coin of the Increasing Felicity (period)," the reverse inscriptions being all in Manchu. A very perceptible deterioration in the national coinage appears from this period downwards, both as regards the size of the cash and quality of the metal.

No. 137 has *Pau T'kionan*, and is from the Board of Revenue mint.

No. 138 has *Pau Yunnan*, from the Board of Works mint.

No. 139 has *Pau Su*, from the Soo-chow mint.

No. 140 has *Pau Che*, from the Che-k'ang mint.

No. 141 has *Pau Dung*, from the Shan-tung mint.

No. 142 has *Pau Fu*, from the Fuh-k'een mint.

No. 143 has *Pau K'ian*, probably from the Fuh-k'een mint.

No. 144 has *Pau Gui*, from the Kwei-lin mint.

No. 145 has *Pau Tzin*, from the Shan-se mint.

No. 146 has *Pau Tchuman*, from the Szé-ch'uen mint.

No. 147 has *Pau U*, from the Wo-ch'ang mint.

No. 148 has *Pau Tch'ang*, from the Nán-ch'ang mint.

No. 149 has *Pau Nan*, from the Hoó-nán mint.

No. 150 has *Pau T'zi*, from the Ch'ih-lé mint.

No. 151 has *Pau Gwang*, from the Kwáng-tung mint.

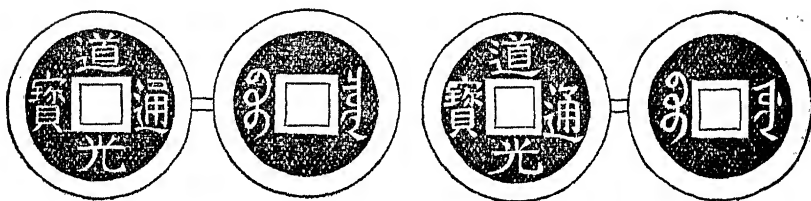
No. 152 has *Pau Shan*, from the Shén-se mint.

No. 153 has *Pau An*, from the Gan-hwuy mint.

No. 154 has *Pau Yón*, from the Yün-nán mint.

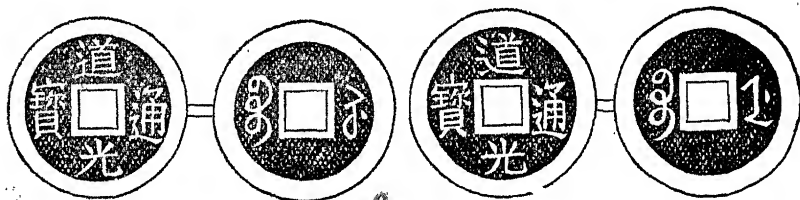
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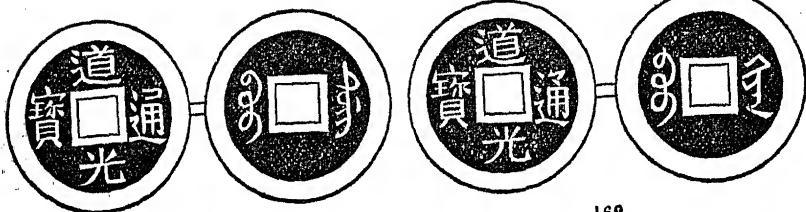
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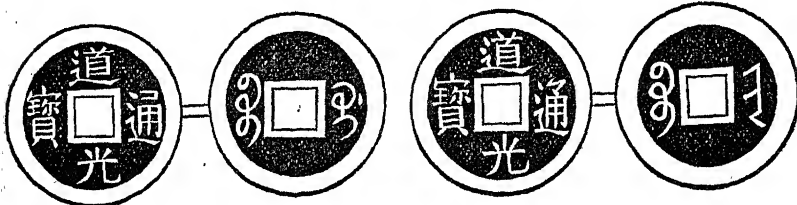
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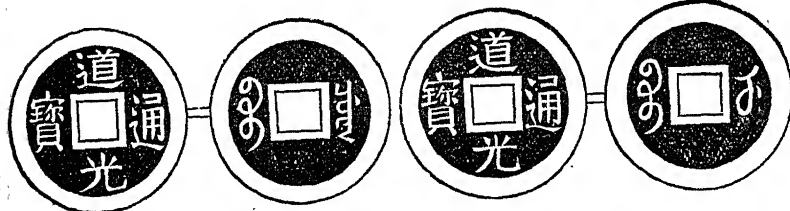
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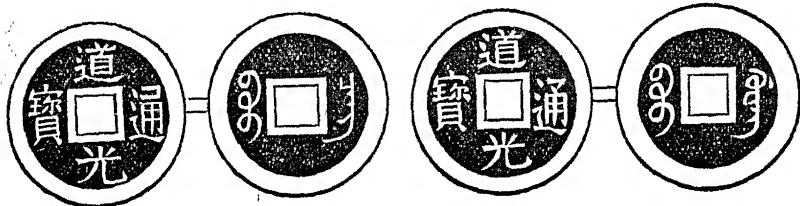
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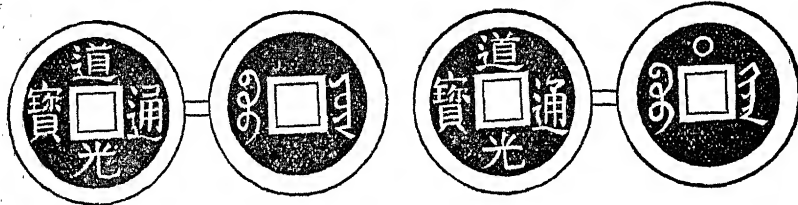
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168



Jin tsung was succeeded at his death by Seuen tsung 宣宗 in 1820, who ascended the throne with the national designation 道光 *Tadu kwang* "Lustre of right principles (or Reason)." A new obverse was struck on the occasion, with the superscription *Tadu kwang t'ung padu* "Current coin of the Reason's Lustre (period)," the reverses as before being all in Manchu, as follows:—

No. 155 has *Pau Tsiomun*, from the Board of Revenue mint.

No. 156 has *Pau Yurwan*, from the Board of Works mint.

No. 157 has *Pau Su*, from the Soo-chow mint.

No. 158 has *Pau Che*, from the Che-kěang mint.

No. 159 has *Pau Dung*, from the Shan-tung mint.

No. 160 has *Pau Kiyan*, probably from the Fuh-kéen mint.

No. 161 has *Pau Gui*, from the Kwei-lin mint.

No. 162 has *Pau Tzin*, from the Shan-se mint.

No. 163 has *Pau Tchuwan*, from the Szé-ch'uen mint.

No. 164 has *Pau U*, from the Wod-ch'ang mint.

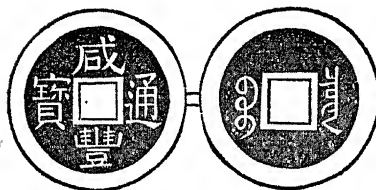
No. 165 has *Pau Tchang*, from the Nân-ch'ang mint.

No. 166 has *Pau Gwang*, from the Kwàng-tung mint.

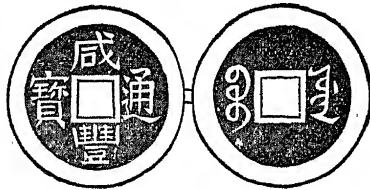
No. 167 has *Pau Yôn*, from the Yün-nân mint.

No. 168 is also a *Pau Kiyan*, having an additional circle at the top of the reverse. The only explanation given generally by the Chinese of marks of this class is that they are put on by the coiners for amusement.

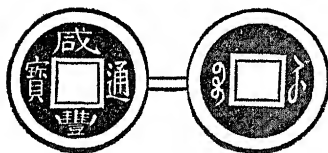
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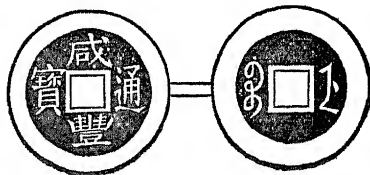
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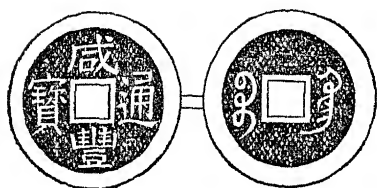
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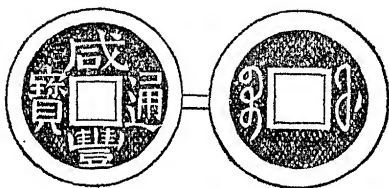
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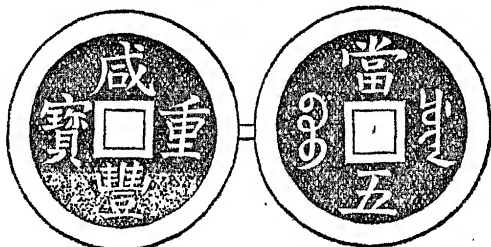
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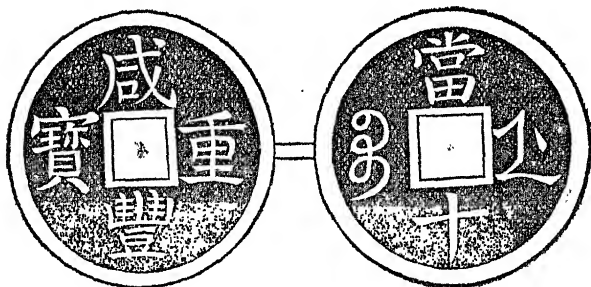
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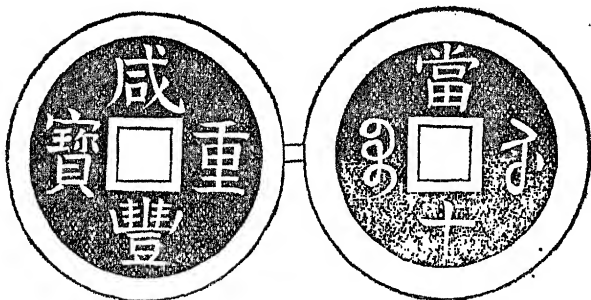
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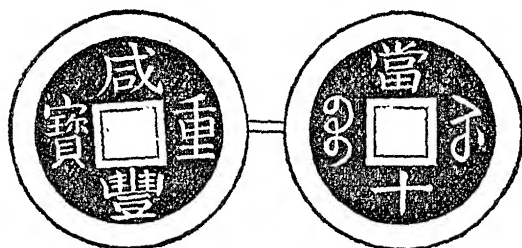
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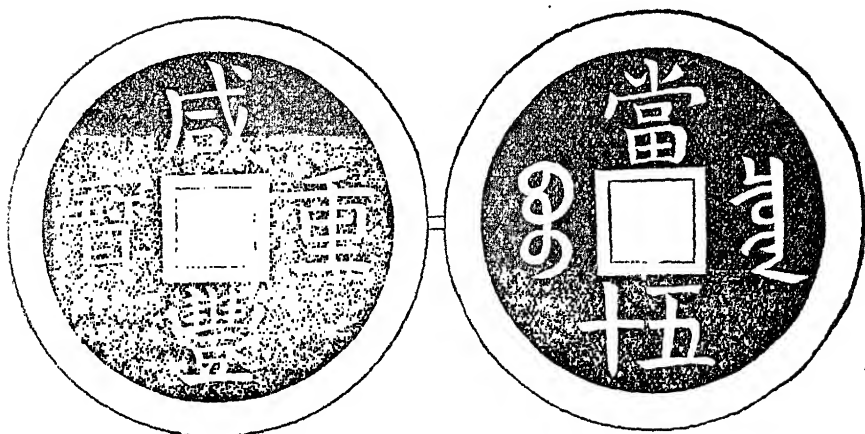
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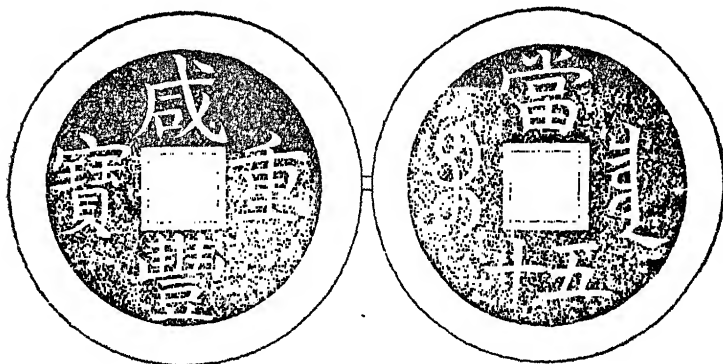
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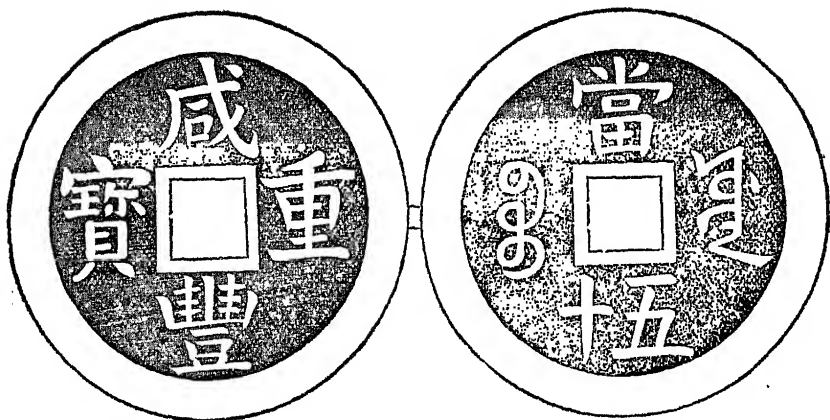
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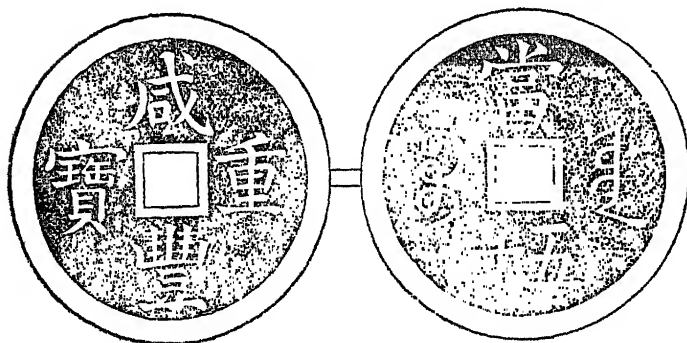
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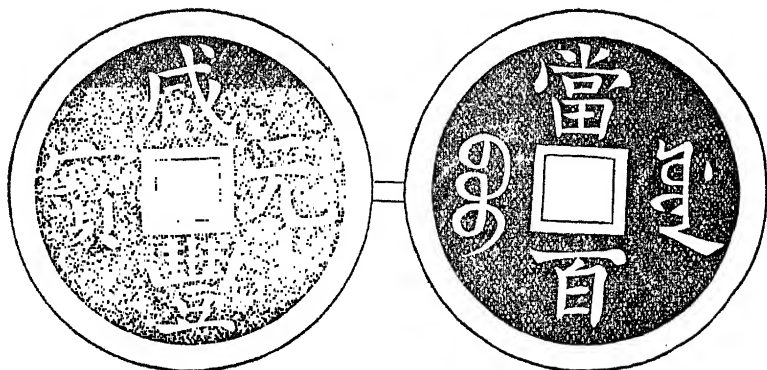
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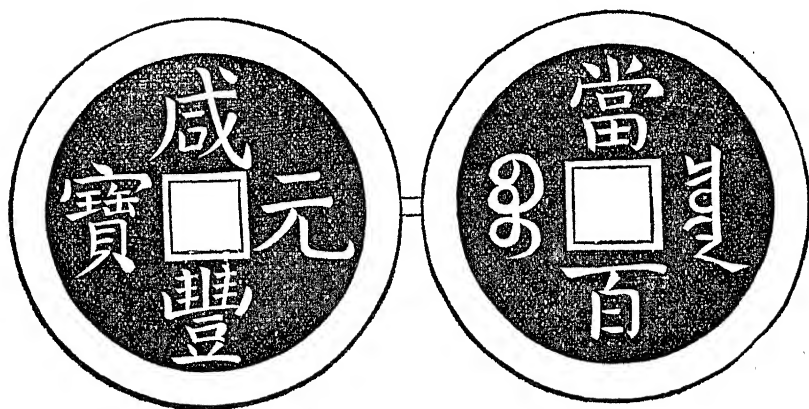
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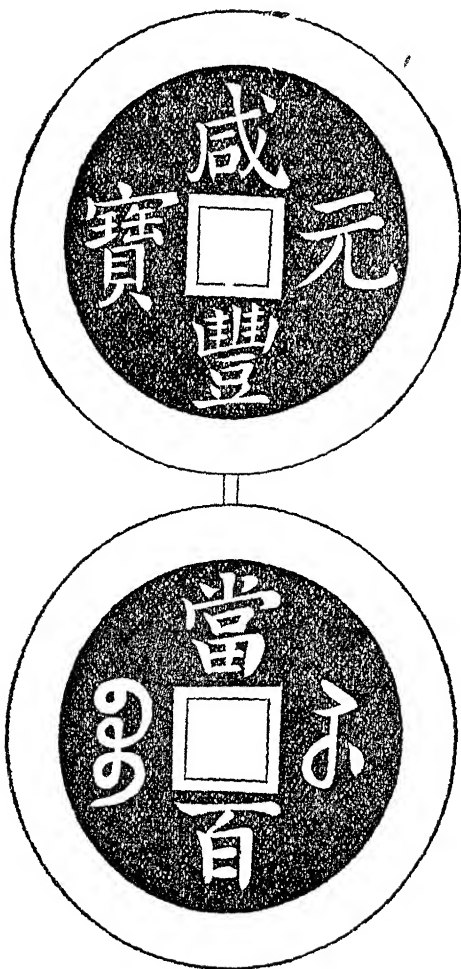


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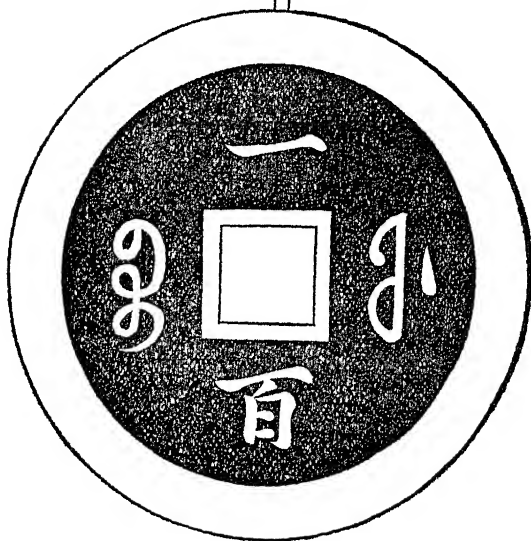
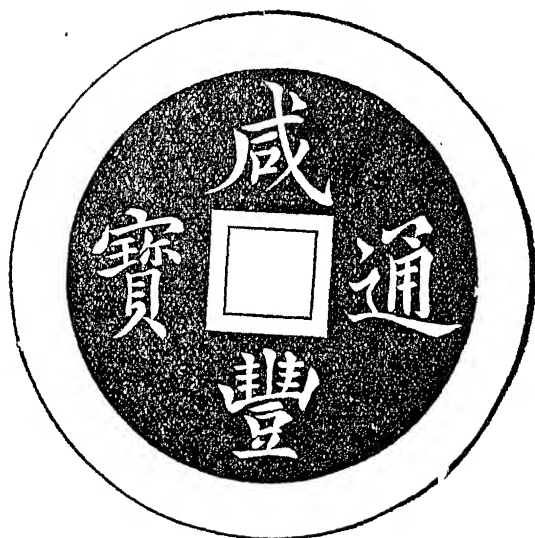


184





186



On the accession of the present emperor to the throne in 1850, 咸豐 *Hsien fung* "Prevailing Abundance" was selected as the national designation, when a new obverse was cast with the super-scription *Hsien fung tung padu* "Current coin of the Prevailing Abundance (period);" the reverses being in Manchu as before. The specimens of coinage during this reign, in general circulation, appear to be among the worst that have been issued in China, especially those cast at Soo-chow.

No. 169 has *Pau Tsiowan*, from the Board of Revenue mint.

No. 170 has *Pau Yuwan*, from the Board of Works mint.

No. 171 has *Pau Su*, from the Soo-chow mint.

No. 172 has *Pau Che*, from the Che-k'ang mint.

No. 173 has *Pau Gwang*, from the Kwang-tung mint.

No. 174 has *Pau Fu*, from the Fuh-chow mint.

The insurrection, which is about coeval with the present reign, soon began to shew its influence as a source of financial embarrassment to the government. The continued drain on the treasury, for sustaining military operations, caused the difficulty to be felt by 1853 to such an extent that proposals of plans were invited for meeting the emergency. Various schemes were sent in and partially acted upon. Prominent among these was the issue of a paper currency; and the substitution of iron, lead, and even leather, has been mentioned, for copper, in the manufacture of cash; but the plan most extensively carried into operation was the issue of large cash having a nominal value much beyond their intrinsic metallic worth. This experiment was tested most completely at the metropolitan mints, but it was also extended more or less partially to the provinces. Coins were cast by the Board of Revenue of the value nominally of 5, 10, 50, 100, 200, 300, 400, 500, and 1000 cash. Those above 100 cash seem to have had a very limited circulation. The following scale for the weight of large coins was fixed by the Board of Revenue:—

for 100 cash.....2 *l'ang* 4 *ts'ien*.

50 „1 „ 2 „

10 „4 „ 4 *fun*

5 „2 „ 2 „

This gives a little more than $\frac{1}{3}$ of the weight used in the same number of full-sized cash in the earlier part of the dynasty.

No. 175 is one of the new coins of the value of 5 cash. The obverse has the inscription 咸豐重寶 *Hsien fung chung padu*

"Heavy coin of the Prevailing Abundance (period)." The left and right of the reverse has *Pau Yuman* in Manchu, shewing that it is issued from the Board of Works; above and below the aperture is 當五 *Tang wò* "Equal to Five," in Chinese, that being the value of the coin.

No. 176 has the same obverse as the preceding. At the top and bottom of the reverse is 當十 *Tung shih* "Equal to Ten," indicating the numerical value; on the left and right is *Pau Che*, shewing that it is coined at the Che-këang mint.

No. 177 is another of the same nominal value as the preceding, but differing considerably in size. The only variation in the inscription is that this has *Pau Su* on the left and right of the reverse, shewing that it is coined at Soo-chow.

No. 178 has the same inscriptions on both sides, and is of the same nominal value as the preceding, but is much smaller in size.

No. 179 has the same obverse as the preceding. The reverse has *Pau Tsiowan*, the mark of the Board of Revenue mint, on the left and right, and 當五十 *Tang Wò-shih* "Equal to Fifty" above and below.

No. 180 has exactly the same inscriptions as the preceding, but is considerably smaller in size.

No. 181 has the same obverse. The reverse has *Pau Yuman* on the left and right, indicating its issue from the Board of Works, and *Tang Wò-shih* above and below.

No. 182 has the same inscriptions as the preceding, but is smaller in size.

No. 183 has on the obverse 咸豐元寶 *Hien fung yüen paòu* "Large coin of the Prevailing Abundance (period)." The reverse has *Pau Tsiowan* in Manchu, on the left and right, and 當百 *Tun pih* "Equal to a Hundred," in Chinese, above and below, indicating the conventional value of the coin.

No. 184 has the same obverse as the preceding, the reverse having *Pau Yuman* on the left and right.

No. 185 has the same obverse, the reverse having *Pau Su* on the left and right.

No. 186 has on the obverse the inscription *Hien fung tung paòu* "Current coin of the Prevailing Abundance (period)" The reverse has *Pau Pu* in Manchu on the left and right, shewing that

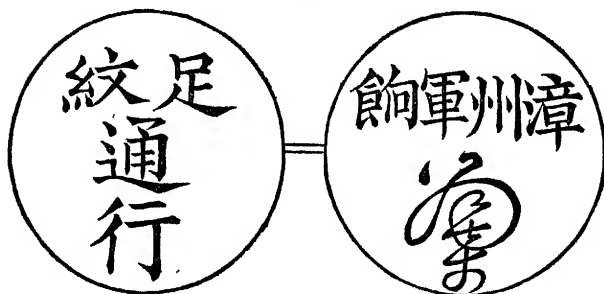
it is cast at Fuh-chow, and *Yih pih* "One hundred," in Chinese above and below. This coin, which is much larger than the others, appears to have a great portion of iron in the alloy.

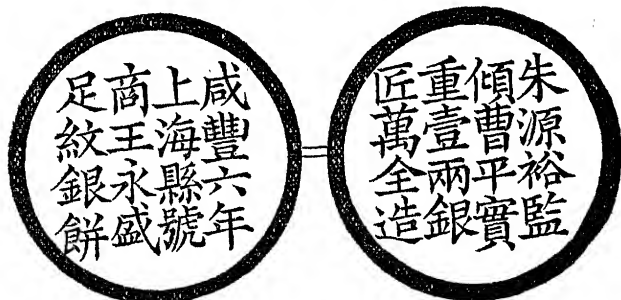
The small specimens of the several values are probably illegal coinages, but they are in general circulation, the same as the others. Both the legal and illegal ones, however, have always been reluctantly taken by the people. In some places they will not pass at all; at others, they are only taken for a given percentage of any payment. The gradual reduction in the size has almost effected their extinction as a circulating medium.

187



188





Although the only silver coinage of importance issued under the Manchu imperial patronage, was that first employed in Tibet about the close of last century, yet it is no uncommon occurrence for foreign dollars to be counterfeited by the Chinese; and that not merely by private speculators, but even at the present time, or very recently, several attempts have been made under the direct sanction of the high mandarins to fabricate the Carolus dollar. In the time of Taü-kwang, two kinds of dollars were issued at the instigation of the provincial officers of Fuh-k'een, both bearing Chinese devices, as above, and intended for the payment of the soldiers.

No. 187 has on the obverse a bust of the Genius of Longevity, with four words on the breast 庫平柒式 *K'óo p'ing ts'eh úrh* "Seven (*ts'een*) two (*fun*) by the Treasury balance." The two inscriptions on the border are in the seal character; that on the right being 足紋銀餅 *Tsuh wan yín p'ing* "Silver cake of the standard purity (or Sycee);" the left has 道光年鑄 *Taü kwang n'een choó* "Cast in the time of Taü-kwang." On the reverse the four words enclosing the vase are in the Manchu character; those above and below are *Tai wan*, the transcript of the two characters 臺灣, which is the Chinese name for Formosa, where the coin was cast. The meaning of the other two words is not so obvious; that on the left appears to be *Kiyaki*, possibly a local name in Formosa; on the right is *koo*, which may perhaps be intended for "Treasury," of which it is both the transcription from the Chinese, and also the translation.

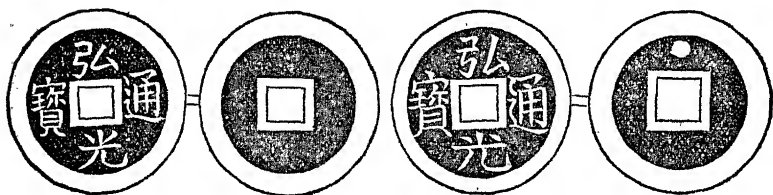
No. 188 has the two characters *Tsuh wan* "Pure Sycee" at the top of the obverse, the two characters below being *T'ung h'ing*

"Generally current." The reverse bears the horizontal inscription *Chang chow keun häng* "Chang-chow commissariat." Under this, a running-hand inscription gives the four characters 爲七十四 *Wei ts'ei shih szé* "Value seventy-four," i. e. seven *tsên* four *fun* weight in silver.

No. 189 is a coin of a tael weight, produced in Shanghai under the direction of the Intendant of Circuit, about the end of the year 1856. It was struck from a steel die, and tolerably well executed; but it had scarcely made its appearance, when spurious imitations of baser metal were put in joint circulation with it, so that confidence in the new coin was speedily at an end, and it is now only to be found as a numismatic specimen. The inscription on the obverse is *Hên fung luh nën Sháng haè hên haü shang Wáng Yung shing tsuh wan yin ping* "Hên-fung, 6th year: a cake of pure sycee silver, from the firm of Wáng Yung-shing, in the district of Shanghae." The reverse has *Choo Yuên yu kên k'ing tsaou ping shih chung yih lëang yin tsëang Wán Tseüen tsauü* "One *lëang* of silver, true weight by the ordinary balance, cast under the inspection of Choo Yuên-yu, and executed by Wán Tseüen, silversmith."

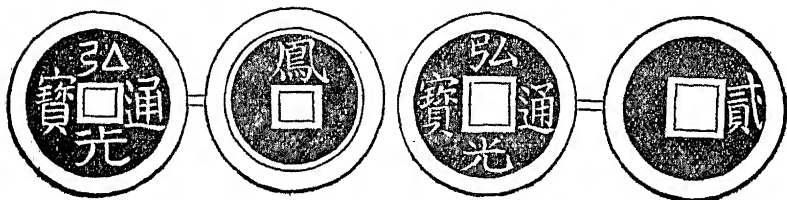
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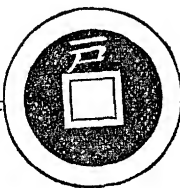
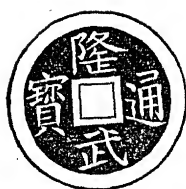


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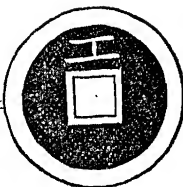
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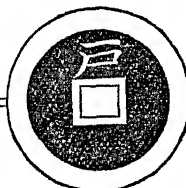
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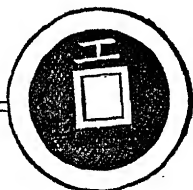
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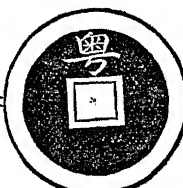
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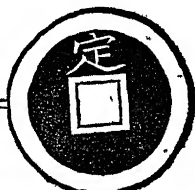
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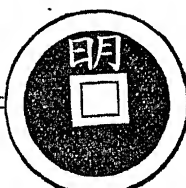
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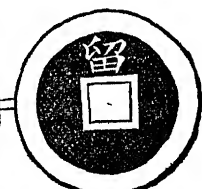
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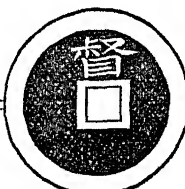
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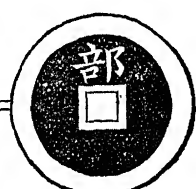
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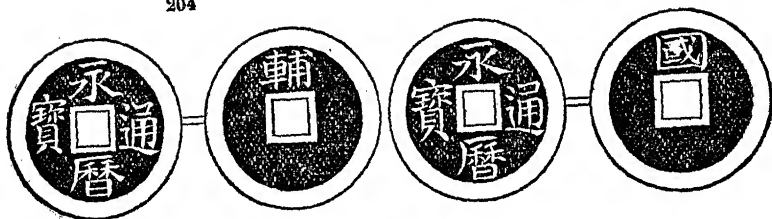


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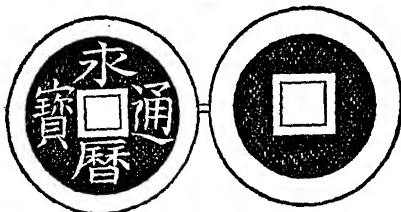


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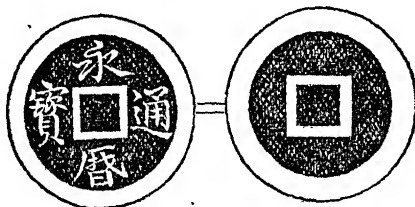
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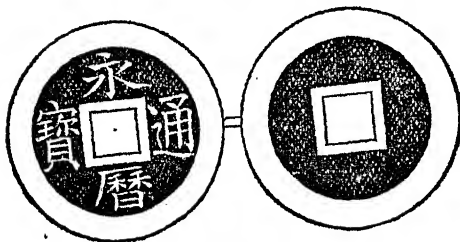
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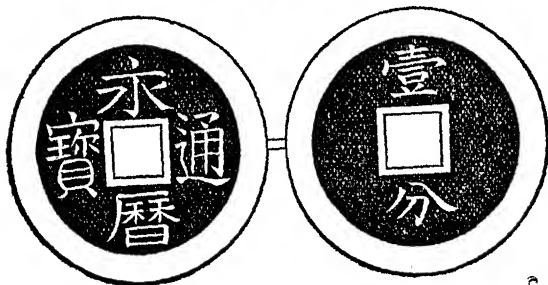
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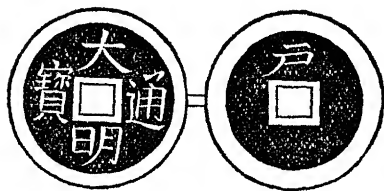


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The copper coins described in the preceding pages are all numbered among the legitimist currency of the Manchu dynasty, having been issued by the several emperors in succession; but during the first years of the Tartar supremacy, several attempts were made by scions of the Ming to re-establish the sovereignty of that house; on which occasions cash were issued cotemporary with the Manchu coinage.

When the last Ming emperor 懷宗 Hwaê-tsung was dead, the adherents of that dynasty selected 由崧 Yêw-sung, a grandson of the emperor 神宗 Shên tsung, to fill the throne. On the election of the new prince, known as 福王 Fuh Wáng "Prince of Fuh," who held his court at Nanking, 弘光 Hung kwang "Great Lustre" was chosen for the national designation, in 1645. On the 1st day of the 10th month of the same year, the coin No. 190 was issued, bearing on the face the inscription *Hung kwang t'ung pao* "Current coin of the Great Lustre (period)." The reverse is blank.

No. 191 is another issue, differing from the preceding in having a circular point at the top of the reverse.

No. 192 is another coin of the same prince, with a similar obverse in the seal character. The reverse has the single character *Fung* above the aperture, implying that it was cast at 鳳陽 Fung-yáng under the jurisdiction of 馬士英 Mâ Szé-ying when he was Governor-general there, in the year 1645.

No. 193 has the same obverse in the common character. The reverse has the character 貳 *âr*h on the right of the aperture, which is a form of 二 *âr*h "two" used in official documents, and implies that the coin is equal to two of the ordinary cash.

In 1645, another member of the Ming family entitled 唐王 T'âng Wáng "Prince of T'âng," being a descendant of the ninth

generation from 太祖 T'ao tsoò the founder, declared himself the representative of the falling dynasty, established his court in the Treasurer's office at Fuh-chow, and selected 隆武 *Lung wò* "Exalted Prowess" for the national designation. On this occasion, the two following coins were cast, bearing on the obverse—*Lung wò t'ung padu* "Current coin of the Exalted Prowess (period)."

No. 194 has *Hoó* on the reverse, the mark of the Board of Revenue.

No. 195 has *Kung*, the mark of the Board of Works.

On the death of T'ang Wáng in 1646, another grandson of the emperor Shín-tsung, named 永明王 *Yung ming Wáng* "Prince of the imperishable Ming," was immediately raised to the imperial dignity at Chaóu-k'ing in Kwàng-tung, with the title 桂王 *Kwei Wáng* "Prince of Kwei;" when 永曆 *Yung leih* "Enduring Progression" was selected for the national designation, and a variety of coins were cast, all bearing on the obverse the inscription—*Yung leih t'ung padu* "Current coin of the Enduring Progression (period)." They are distinguished by their several reverses as below. This prince with his mother and consort were baptized in the Christian faith, as were most of his courtiers.

No. 196 has *Hoó*, for the Board of Revenue, from which the coin appears to have been issued.

No. 197 has *Kung*, for the Board of Works, implying that to be its source.

No. 198 has the character 粵 *Yue*, the ancient name of the country now known as Kwàng-tung and Kwàng-se.

No. 199 has *Ting*, which perhaps stands for 羅定 *Ló-tíng*, a departmental city in Kwàng-tung, near the seat of this prince's government.

No. 200 has 明 *Ming*, apparently intended for the Ming dynasty.

Chaóu-k'ing being taken by the Manchu troops in 1647, Kwei Wang and his retinue sought refuge at Kwei-lín in Kwàng-se, but soon after abandoned that post, leaving it in charge of his viceroy and general 瞿式耜 *K'eu Shih-szé*, who determined to stand or fall in the defence of Kwei-lín for his royal master. A mint

was opened by him, to furnish the money necessary for his military operations; and the reverses of the following coins indicate their issue under his rule.

No. 201 has 留 *Lew* "Remaining," in reference to the resident Governor K'eu Shih-szé remaining in charge of Kwei-lín.

No. 202 has 督 *Tuh* "Governor."

No. 203 has 部 *Poó* "Tribunal." This and the preceding together form the official title of K'eu Shih-szé, *Tuh-poó*, being the contracted style of 總督部堂 *Tsùng tuh poó t'ang* "Governor-general."

No. 204 has 輔 *Foó* "Aid."

No. 205 has 國 *Kwo* "Nation." This and the preceding together from *Foó kwo* "Vicegerent," indicating the status of K'eu Shih-szé.

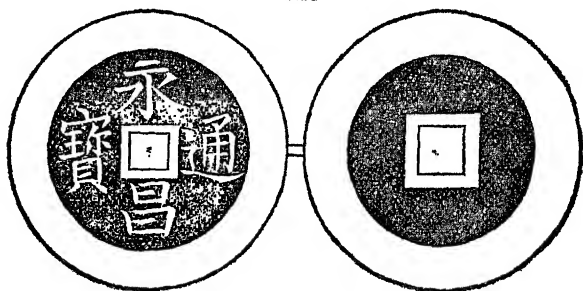
No. 206 is another specimen of a larger size, with a plain reverse.

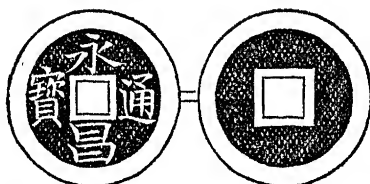
No. 207 is another, with the obverse in the running-hand, and a plain reverse.

No. 208 is another still larger, with a plain reverse.

No. 209 is much larger than any of the others, and has on the reverse 壹分 *Yih fun* "One fun," being equal in value to that weight of silver.

In 1645 another of the Ming descendants was in arms against the Manchus in Che-kěang, where he fixed his seat of government at T'ae-chow. This prince, who was entitled 魯王 *Lò Wáng* "Prince of Lò," issued the coin No. 210, with the superscription 大明通寶 *Tá mǐng t'ung paoü* "Current coin of the Great Ming dynasty." The *Hoó* on the reverse implies its issue from the Board of Revenue.



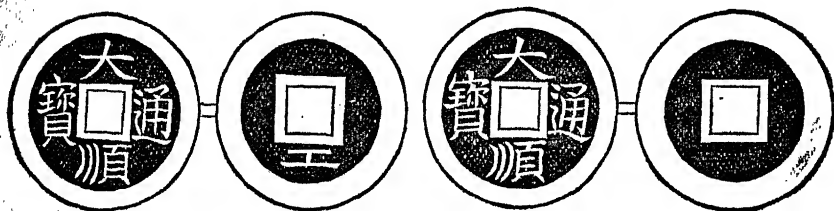


In 1637 the rebel 李自成 *Lè Tszé-ching* commenced his revolt against the Ming government, which after a course of seven years, prepared the way for the entrance of the Manchus into the capital. In 1644 he fixed his seat of government at 西安 *Se-gan*, the capital of Shen-se, took 大順 *Tá shún* "Thorough Compliance" as the name of his dynasty, and appointed the term 永昌 *Yung ch'ang* "Enduring Affluence" for the national designation. The coin No. 211 was cast on the occasion, equal in nominal value to one *lèang* of silver. The inscription on the obverse is—*Yung ch'ang t'ung pao* "Current coin of the Enduring Affluence (period)." The reverse is blank.

No. 212 is another coin cast under the same authority, but much smaller. The obverse has the same inscription, and the reverse is also blank. This coin weighs nine *fun*.

213

214

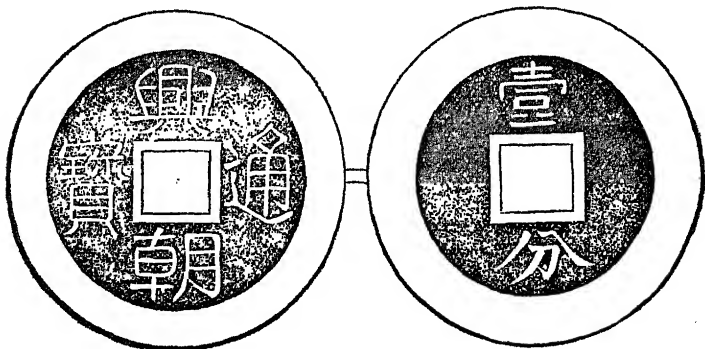


Nearly contemporaneous with the preceding, a ferocious rebel named 張獻忠 *Chang Hsén-chung* made himself master of a portion of the west of China, and established his metropolis at 成都 *Ching-too* the capital of Szé-ch'uen, in 1644, when he took 大西 *Tá se* "Great Western" for the name of his dynasty, and 大順 *Tá shún* "Thorough Compliance" for the national designation of his reign. The coin No. 213 was cast on the occasion, having on the obverse—*Tá shún t'ung pao* "Current coin of

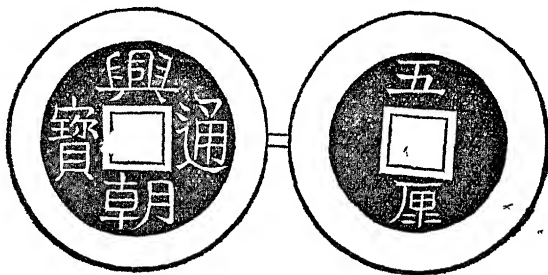
the Thorough Compliance (period)." The reverse has the character *Kung* below the aperture, implying its issue from the Board of Works. The weight is one *tsien* three *fun*.

No. 214 has a similar obverse, but the reverse is blank. These two coins are sought for by sea-faring people, with the impression that they secure favorable weather to the possessor.

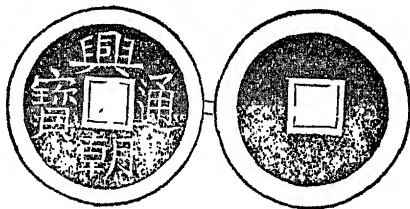
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217



After the death of Chang Hsien-chung, one of his associates named 孫可望 Sun K'ò-wáng rendered himself notorious by his insurrectionary movements. In 1655, he attempted to esta-

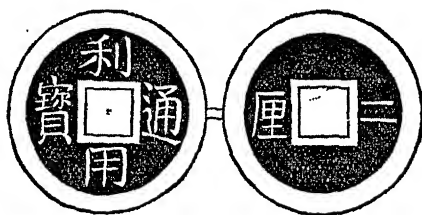
blish his seat of government at 貴陽 Kwei-yâng in Kwei-chow, and having chosen 興朝 *Hing-ch'aou* "Rising Dynasty" for the designation of his reign, three different coins were issued by him.

No. 215 has on the obverse—*Hing ch'aou t'ung padu* "Current coin of the Rising Dynasty (period)." On the reverse above and below the aperture are the two characters 壹分 *Yih fun* "One fun," implying that it is equal in value to that weight of silver. The coin itself weighs six *tsëen* four *fun*. The characters are in the *lé shoo* "official hand."

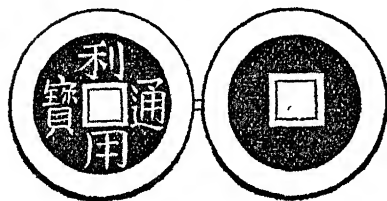
No. 216 has the same obverse as the preceding. The reverse has the two characters 五厘 *Wò lè* "Five lè," signifying that the coin is worth that amount of silver. The characters are also in the official hand.

No. 217 is a smaller coin with the same obverse, and the reverse blank. The weight is one *tsëen* five *fun*. The characters are also in the official hand.

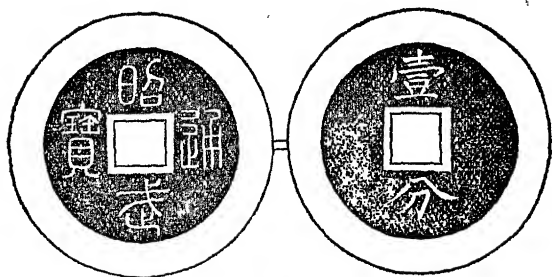
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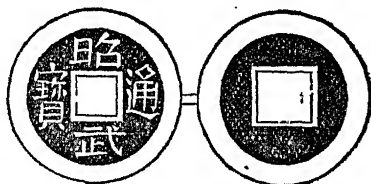
219



220



221



The Chinese general 吳三桂 *Woô San-kwei*, who had defeated the rebel *Lè Tszé-ching*, and was the immediate cause of the introduction of the Manchus into China, was established as a feudal prince in the western provinces, and in 1673 raised the standard of revolt against his new masters. Fixing upon *Yün-nân* as his metropolitan seat, he adopted as the national designation of his period of rule 昭武 *Chaou wò* "Resplendent Prowess."

No. 218 has on the obverse *Lé yung t'ung padu* "Profitable Employment current coin." The reverse has 二厘 *Urh lè* "Two lè" on the right and left of the aperture, indicating its value in silver. This is said to have been issued by *Woô San-kwei* previous to his adoption of a new national designation; 利用 *Lé yung*, "Profitable Employment," being the name of a mint. The weight is one *tszên* five *fun*.

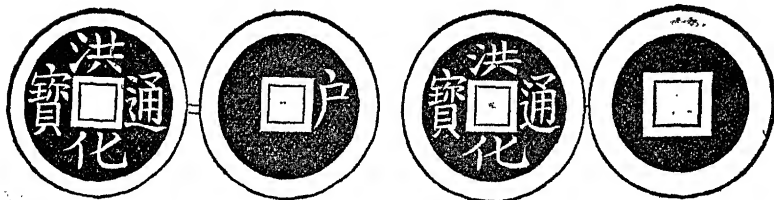
No. 219 is a smaller coin than the preceding having the same inscription on the obverse, but the reverse is blank.

No. 220 was issued by *Woô San-kwei* after he had adopted the new designation. The inscription on the obverse is in the seal character,—*Chaou wò t'ung padu* "Current coin of the Resplendent Prowess (period)." The reverse has 壹分 *Yih fun* "One fun," indicating its value in silver.

No. 221 which is smaller than the preceding, has the same inscription on the obverse in the common character. The reverse is blank. The coin weighs eight *fun*.

222

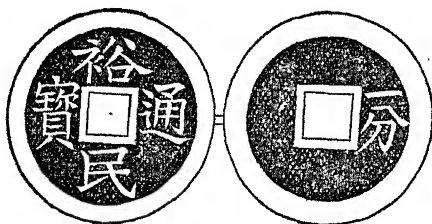
223



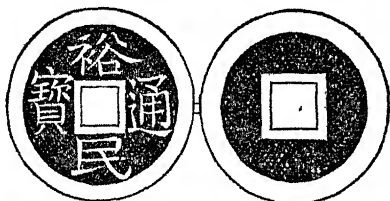
After the death of Woó San-kwei in 1679, his grandson 吳世璠 Woó Shé-fan endeavoured to resuscitate his cause, and having fixed his seat of government at Kwei-yáng in Kwei-chow, he selected 洪化 *Hung hwá* "Extensive Reformation" for his designation, and issued the coin No. 222, having on the obverse *Hung hwá t'ung p'ao* "Current coin of the Extensive Reformation (period)." The reverse has the character *Hoó* on the right of the aperture, implying that it is cast by the Board of Revenue.

No. 223 has the same inscription on the obverse as the preceding, but the reverse is blank. The weight is one *tsên* three *fun*.

224



225



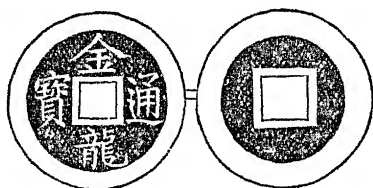
Cotemporary with the rebellion of Woó San-kwei, in 1674 耿精忠 Kang Tsing-chung headed an insurrection in the eastern provinces of Fuh-kên and Kwàng-tung, which was sup-

pressed in little more than two years from its commencement. The two following coins were issued by this chief.

No. 224 bears on the obverse the inscription—*Yuh mìn t'ung p'adu* "Enriching the People current coin." The reverse has the two characters 一分 *Yih fun* "One fun" on the right side of the aperture, implying that it is equal in value to that weight of silver. 裕民 *Yuh mìn* "Enriching the People" is the designation of a mint. The weight is one *ts'ên* six *fun*.

No. 225 is another with the same obverse as the preceding, but much smaller, and having a blank reverse.

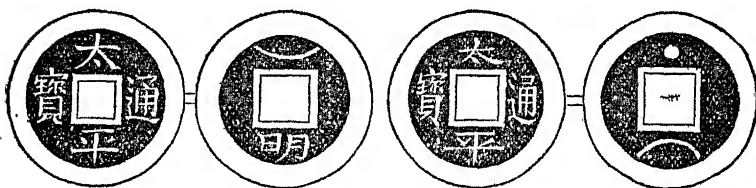
226



In 1832, 趙金龍 *Cháu Kin-lung* one of the chiefs of the 獠 *Yaou*, a mountain race inhabiting the south-west of China, rose against the Manchu powers, and declared himself emperor of China, taking his own name *Kin lung* "Golden Dragon" as the imperial epithet. While carrying on the contest with the imperial forces, he had the coin No. 226 cast, bearing on the obverse the inscription *Kin lung tung p'adu* "Golden Dragon current coin."

227

228



The most recent specimens of insurgent coinage are probably those issued by the Triad rebels who took possession of the city of Shanghai in 1853. Although not in immediate connexion with the insurgent body at Nanking, they were desirous of claiming affiliation, and in the following year adopted the dynastic appellation of 洪秀全 *Hung Séw-tseñ* the Nanking chief, 太平

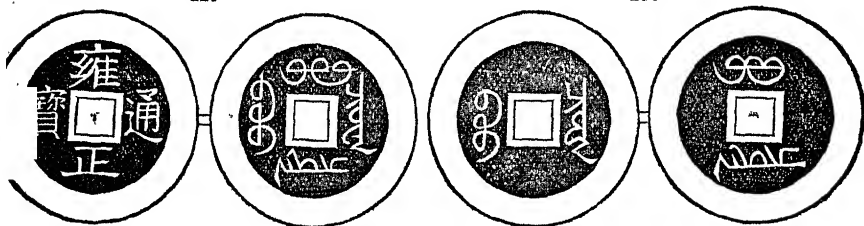
天國 *T'ae ping t'een kwo* "Great Tranquility Celestial State," and copper coins were issued accordingly by the chief 劉麗川 *Lêw Lé-ch'uen*.

No. 227 has on the obverse *T'ae ping tung padu* "Current coin of the Great Tranquility (state)." The reverse has a crescent above the aperture, and below is the character *Ming*, for the Ming dynasty; the professed object of the Triad Society being to restore that dynasty to the supremacy in China.

No. 228 is another coin issued on the same occasion as the preceding, and having the same inscription on the obverse. The reverse has a circle above the aperture, possibly intended to represent the sun, and a crescent below for the moon, the device being a cipher for the character *Ming*, which is composed of the sun and moon. These two coins are inferior in material and manufacture even to the general run of the *Tuü-kwang* and *Hên-fung* cash.

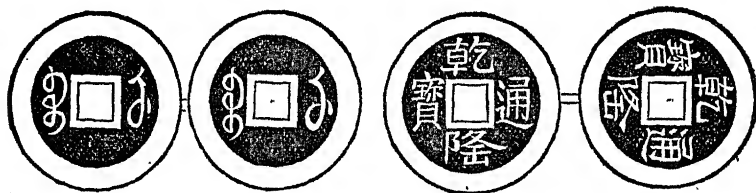
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231

232



Besides the legal coins issued from the government mints, some are occasionally met with bearing the same devices capriciously disposed. These are said to be made for diversion by the workmen in the mints, and sometimes find their way into circulation along with the ordinary cash. The above are four specimens of such coins.

No. 229 has on the obverse the common inscription of the *Yung ching* coins—*Yung ching tung padu* "Current coin of the Agree-

able Rectitude (period)." The reverse has on the left and right of the aperture the two Manchu words *Pau Tsioman*, implying that it was cast at the mint of the Board of Revenue. The same inscription is repeated in fainter characters in a horizontal form above and below the aperture.

No. 230 contains a reverse inscription on each face; one having *Pau Tsioman* in Manchu, the legend belonging to the Board of Revenue mint, and the reverse the same inscription placed transversely.

No. 231 has also two reverse inscriptions in Manchu, being *Pau U* for the Wod-ch'ang mint, the two faces corresponding with regard to top and bottom.

No. 232 has two obverse inscriptions in Chinese,—*K'een lung t'ung padu* "Current coin of the Celestial Support (period)." These two inscriptions are placed transversely with regard to each other.

The invention and priority in the use of paper money by the Chinese is now very generally admitted. Klaproth, Chaudoir, and others have given details to some extent regarding the history of this currency. From native records we learn that it was first used by the imperial government in the ninth century, and was continued with intervals till near the close of the fifteenth; from which down to very recent times no attempt has been made to revive the practice. The extensive use of promissory notes, however, in various parts of the empire, and the exhausted state of the imperial treasury, has suggested the desirability of another attempt by this means to relieve the state from the financial pressure; and after a cessation of four hundred years, government banks have again been opened in the large cities for the issue of a new paper currency. The success that has attended the experiment is not such as to promise a long continuance of this expedient. The accompanying plate represents a note for a hundred cash, issued in the city of Fuh-chow; of which the following is an explanation of the several marks :—

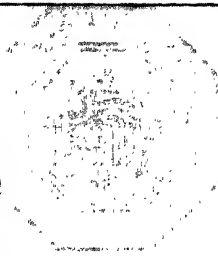
Within the blue ink border, the blue column on the right reads—*P'ing peau ch'ien ts'ien yih pik wan* "Authentic note for the receipt of one hundred cash." The left column in blue is—*H'een fung wòd nèèn* (szé) *yue* (ts'eih) *jih* (Seuen) *tszé* (k'èw yih yih) *haou* "Pre-

vailing Abundance, fifth year, (FOURTH) month, (*seventh*) day, * (SEVEN) signature, (*nine hundred and eleventh*) number." The words in brackets are not in blue ink; those in red are stamped in, after the original form is printed; such is the number of the month, "FOURTH," and the character "SEVEN," which is used as a numeral, being the 601st character in the 千字文 *Tsēn tszé wan* "Book of a Thousand Characters." † Between the characters *tszé* and *haou*, is the Bank stamp in red,—*Yung fung kwan k'eh* "Lasting Abundance government office." On the right hand column, covering the characters *yih pih wan*, is the same inscription in red, given in the seal character, with an ornamental border. In the upper part of the note, between the blue columns, the red stamp has the following four lines:—*Yuèn kin shang mên, yih leuh k'ing yung, ché tsēn ch'ung tsuh, ch'au peau che ts'eh*. "Used by common consent of the merchants from far and near; the full tale of standard coin will be paid on presentation of this note." Near the lower right corner is an octagon seal in red, enclosed in an ornamental border. Immediately within the border are the eight trigrams ‡ of Fo-he. Within these, separated by a line is a quotation of eight characters from the last section of the 大學 *Tá hōo* "Great Study," one of the Four Books:—*生之者衆 用之者舒 Sang che ch'ay chung, ying che ch'ay shoo* "The producers numerous, and the users easy." In the centre is the sign of the Bank 永豐 *Yung fung*, in a form of the seal character, different from the one above. At the upper right corner is another red seal, the border of which is in eight divisions, each containing a representation of a package of precious ware. Within this is an ancient couplet in sixteen characters, familiar to literary men: 敬以待己 恕以持人 勤以補拙 儉以養廉 *K'ing è ch'è k'è, shoó è tsé jín, k'ín è pòd chue, k'èen è yàng lēn* "Conduct yourself with respect, treat others with indulgence, remedy deficiencies by diligence, cultivate economy by moderation." Within this, an ornamented circular ring encloses the Bank

* May 22, 1855.

† This is a popular little tract, consisting of exactly 1,000 characters, no one of which is repeated. The several characters are used in catalogues and such like, in exactly the same manner as ordinal numbers.

‡ These form the nucleus of the 易經 *Yih king* "Book of Changes," one of the Five Classics.



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stamp *Yüing fung kwan k'euh*. The characters in black are all written in with the pencil, when the note is issued. The character at the foot of the right column is said to be the abbreviated running-hand form of 眞 *Cháu*, "Certified." The single character in the left hand column between *yue* and *jih* is *ts'eh* "seventh," being the day of the month when issued. The three characters written over the red stamp are the number of the note in the signature *Seuen*, i. e. *k'èw yih yih* (nine one one, or) "nine hundred and eleven." The parts of characters on the right hand edge of the paper show that the note is cut out of a book, in the fashion of a cheque. The complete column would read—(Seuen) *tszé* (*k'èw yih yih*) *haou ho t'üing ts'ên peau* "Cash Cheque: No. 111 of the signature SEUEN." The number here is also written over a red official stamp.

In bringing these notes to a conclusion, it will perhaps appear to some that they have been allowed to reach an undue length, and the writer is still disposed to defend them against the charge. It may be observed, however, that they were put together more especially for the assistance of those who are acquainted with the Chinese and Manchu languages; that such might be able, by comparison with any cut and the annexed description, to ascertain at a glance the particular category to which any modern Chinese coin should be assigned. The writer has availed himself of the various information on this subject within his reach; but unfortunately nearly all the Chinese numismatical works leave off at the point where this begins, the currency of the reigning dynasty being a subject of elucidation for its successor. He labours under the disadvantage also of not having seen the treatises that have been published in Europe on the same subject, by Hager, Endlicher, the Baron de Chaudoir, Biot, &c. But as these works treat upon Chinese coins in general, both ancient and modern, it is presumed that there may be something in the preceding pages which is not included in such comprehensive publications. An important question connected with the study of Chinese coins, which has not been adverted to here, is the determination of ancient weights and measures, ancient coins being almost the only criterion which has survived the lapse of ages. Biot has given some attention to this question, but his memoir on the subject is now extremely rare.

There is reason to believe, however, that a treatise will shortly be published by a gentleman in France, who has thoroughly studied the matter in all its details, and will be enabled to resolve several points of difficulty, which have hitherto withstood the researches of scientific antiquaries.



ARTICLE IV.

CONTRIBUTION TO THE ETHNOLOGY OF EASTERN ASIA.

BY D. J. MACGOWAN, M.D.

Corresponding member of the American Oriental Society, of the Asiatic Society of Bengal, &c., &c.

Read November 17th 1857.

It appears to have been the duty of Chinese historiographers, from high antiquity, to put on record all information of interest respecting foreign lands, which the various embassies to China afforded, respecting the countries whence they came. Accordingly the annals of this empire are found to contain accounts of states of whose existence we have either no trace, or which are known to us only by name. From such notices of adjacent countries found in the *Urh-shi-yih Shi*, and from other reliable Chinese authorities, we propose gleaning some facts calculated to throw light on questions of ethnographical inquiry; although in thus restricting ourselves, we are guilty of neglecting, for the time, matters of historical and geographical interest that enrich the field from which we glean. These fragmentary notices are chiefly designed to serve as foot-notes for those who like Mr. Logan, the learned editor of the *Journal of the Indian Archipelago*, are specially directing themselves to the task of elucidating the ethnography of this part of the world.

I. ORDEALS.

From the dawn of history to the present day, the belief has been wide-spread that in dubious cases involving guilt or innocence, the gods, if formally appealed to, would miraculously interpose to convict or exculpate the accused. Antiquarians point to evidences of the existence of ordeals under the Mosaic Code, and adduce instances of the practice in remotely separated lands. To those already on record may be added the following cases serving further to show the extent of the belief in such providential interpositions.

Our earliest case is drawn from the farthest east. In the *Nan Shi* (69th kiuen), forming part of the *Urh-shi-yih Shi*, is a notice of the *Wan-shin* (tattooing) country, 7,000 *le* N.E. of Japan,* the Chinese knowledge of which appears to have been derived from Japanese ambassadors who came to China at the close of the fifth century. With the people of that country, the ordeal consisted in exposing the accused a whole night to wild beasts, under the belief that the animals would retire from the presence of an innocent person.

From the same work we learn, at about the same period, that the Japanese besides inflicting torture on criminals and suspected persons, compelled the accused to draw stones out of a vessel of boiling water,† those who were guilty being scalded, while the innocent were unscathed. A more formidable ordeal consisted in seizing a viper confined in a jar, those who escaped death by the exposure being acquitted.

Analogous customs prevailed in ancient Siam (Funan), where the fire and water ordeal were both in use. Suspected persons were required to walk seven steps, holding heated chains in their hands, which were hurtful to the guilty only. At other times they were required to take a ring out of boiling water; or,

* The difficulty we experienced in endeavouring to recognize places described as lying to the east of China, the existence of legends, and of some well-attested physical changes on the adjacent sea, led us long since to surmise that there has been a submergence of populated lands in the Pacific, at no very remote period. The conjecture seemed more plausible when subsequently we met with the hypothesis of Steffen (quoted in Guyot's *Earth and Man*, Sect. II.) "that the vast basin of the Pacific occupies the place of a continent of the early ages, uniting the two worlds, but sunk and submerged at present under the deep waters of the Ocean, in consequence of the latest great revolution of our globe." More recently we have seen that M. D'Eichtal in endeavouring to show that Polynesian civilization is original and the earliest in the world, also supposes the submergence of a continent. Our surmise is simply, that some large islands, which in later archaic times were inhabited, have disappeared from the North Pacific,—a limited cataclysm, unaccompanied by any great physical revolution. There can be little doubt that as we become acquainted with the history, traditions, and ethnic development of Corea and Japan, much light will be thrown on the questions relating to the peopling of America in prehistoric times.

† Wilkes (*U. S. Exploring Expedition*, v. 4, p. 449) mentions a ceremony practised among the Oregon Indians, of seizing heated stones and plunging them in water, apparently to propitiate the spirits—the hot stones not burning those who, by previous fasting, are "clean."

were exposed for three days in a pond to crocodiles, or in an enclosure to wild beasts; and if uninjured at the close of that period they were released. Another class of accused persons were thrown into water; those who floated were acquitted.

On the Indian Peninsula, according to the records of the Ming dynasty, in a country called Kulin, seemingly Tranquebar, the ordeal was in use. That state was ruled by two Mahomedan ministers, who caused accused persons to thrust their fingers in boiling water. If after three days the fingers were not ulcerated, the accused were honorably acquitted, and sent to their homes with music, where friends were assembled to offer congratulations.

In the records of the Tang dynasty, an account is given of an Indian state, Mokilto (Magadha, the present Bahar), which sent an embassy to China in the reign of Tai-tsong (627—650). The people are represented as very mild, and as never inflicting capital punishment, murderers being banished to a desert mountain. They resorted in doubtful cases to an ordeal that was probably peculiar to themselves. To the suspected a diuretic was administered; if the secretion was limpid it was considered a proof of innocence, as turbidity was of guilt.

Although we have restricted these notices to information derived from Chinese sources, it may not be amiss to add that the papers of the day contain an account of the recent trial of a witch by some Hindoos. An old woman suspected of witchcraft was thrown into a tank and nearly drowned, by order of a rajah, despite English law. The Company's officers are represented as investigating the case.

We have met with no evidence of the use of the ordeal in China. Litigants sometimes appear before the image of a god, or in an open space before heaven, and agree in calling imprecations on the guilty person, invoking the divine intervention by striking the guilty one with "thunder," or by some dire and signal visitation.

FLATTENING HEADS.

So far as our reading extends, there is no evidence within reach of Western ethnologists of the practice of flattening infants' heads, except among the aborigines of the Pacific coast of America. It was with no small interest that we met with proofs of the existence on this side of the Pacific of this remarkable custom, to which the Spokane or Flatheads are addicted.

In the records of the Han dynasty, and subsequently, mention is made of the *Shin-han*, a Corean tribe, who flattened the heads of new-born children with stones. Again, in the earliest accounts of the Sulus, who sent an embassy to China in 636 A.D., it is stated that one of the customs of those people was flattening the heads of infants. The practice has perhaps become obsolete in those countries; nevertheless traces of it still exist in Eastern Asia. Modern accounts of the Coreans represent them as not possessing the occipital protuberance to which is attached the ligament of the neck. Indeed the opinion is common among the Chinese that all the Manchus are very flat at the occiput; and the story obtained currency that when the Kwangsi insurgents massacred the Manchu garrison at Nanking, they examined the heads of doubtful persons, decapitating those whose occipital bones were flat. The custom, which obtains in Siam, Manchuria and Corea, of keeping infants on their backs, lashed to a flat board, no doubt serves to give an unnatural form to the occiput, in the plastic state of the skull at that period.

III. PUERPERÆ.

The monstrously cruel treatment to which mothers in Siam are subjected immediately after parturition, by being exposed for a long period to a fierce fire, is now probably confined exclusively to that people; but, in the account given of the Liuchiuan in the reign of Yang-ti, in the beginning of the sixth century, it is stated that one of the customs of that people was the exposure of women to a fire immediately after delivery. The torture on those islands was however continued five days only, whereas among the Siamese it is kept up for weeks. In the history from which we have uniformly drawn the cases described in this paper, a reason is assigned for the strange usage;—it was designed to promote perspiration. The patient was required also to eat the placenta. In the Chinese pharmacopoeia, that viscus holds an important place.*

In the account of a people called *Náh-pih-shen*, near Manila, parturient women are placed in a tub, into which water is poured with the design of facilitating the accouchement.

* In the statistical account of Linchin 琉球國志, a writer is quoted who says that these customs, like that of eating with the fingers instead of chopsticks, no longer exist.

ARTICLE V.

A BUDDHIST SHASTRA, TRANSLATED FROM THE CHINESE:
WITH AN ANALYSIS AND NOTES.

BY THE REV. J. EDKINS, B.A.

Read November 17th 1857.

THE Buddhist translations from Sanscrit are, as is well known, like the originals, in three divisions, consisting of Sutras, Vinaya and Shastras, or *king*, *luh* and *lun*.

The Sutras are the teaching of Buddha himself, and their statements of doctrine are considered by faithful Buddhists as authoritative. The reference made to the Sutras in the present brief treatise, will be found to illustrate clearly the light in which these works, the holy books of the religion, are regarded. They are the umpire in controversies and are supposed to be sacred and infallible.

The Vinaya division treats of discipline. It contains treatises on the vows of the ascetic community, their mode of life, and the manner of admittance to their body. In the Chinese collection, many works in this division are still called *king*. In the form of their composition they also resemble that class of works.

The Shastras (*lun*) are controversial. Their authors are the Hindoo Buddhists who lived at the beginning of the Christian era. They opposed in them the doctrines of rival systems and defended their own. From these works, profoundly studied, light may be derived on the Indian philosophy.

The work now chosen for translation is an extremely short one, by one of the best-known Buddhist authors. This was Nagakro-juna, in Chinese Lung-shu (*dragon tree*). He has been identified with a personage who is much spoken of by the Singhalese Buddhists under the name Nagasena (see Hardy's 'Manual of Buddhism'). He belongs however more properly to the northern Buddhists, who flourished in Cashmere, Tibet, Nepal and China.

He was a voluminous author of the works called the Great development school, *ta sheng*. For example, he wrote the Vibhasha shastra, and that called *Tu-chi-tu-lun*, both treatises of great extent.

Beside being the writer of many of the more important Shastras, he also composed several of the Sutras, though these works are attributed to Shakyamuni Buddha. This is the meaning of the following story. When he had formed the conception of widely extending the Buddhist doctrines, he was taken up by the miraculous power of the Great-dragon-Bodhisattwa, *Tu-lung-p'u-sah*, into the palace of the sea. Here the collection of holy books, called that of "the seven precious stones," was opened for his inspection. For ninety days he studied them, and after committing very many valuable Sutras to memory, he was escorted by a dragon back to India, his native country. Among the works he saw was the much-prized *Hwa-yen-king*. Of the three forms shewn him of this treatise, he chose the briefest to lay before the world. The only natural explanation of this story is that Lung-shu or Nagakrojana is himself the writer of several of the larger Sutras e.g. the *Hwa-yen-king*.

Although the predominant tendency of Lung-shu is to minute metaphysical discussion, he has also been claimed as a founder of the school of the "Western heaven." This very important branch of northern Buddhism, based on the legend of Amitabha Buddha and "the peaceful land," *tsing tu*, elevates itself by a figurative interpretation of its legends to a place among philosophical schools, and claims Lung-shu on the ground that he mentions and praises Amitabha Buddha in the Vibhasha Shastra.

Another school that more correctly claims Lung-shu as its founder, is that of the Madhyamiha philosophy. He wrote the Central Shastra, *Chung lun*, in which the germs of that system are found. By this work he exercised a wide influence over the subsequent development of Buddhism, both in Tibet and in China.

Lung-shu has also a place among the twenty-eight patriarchs. The tradition of these chiefs of the Buddhist religion was brought into China A.D. 526 by Bodhidharma, and the system he founded, and which has since been very popular in this country, he termed the Djen-na doctrine. He probably belonged to that sect of Buddhists, now known as Jains, still existing in India. In his series of patriarchs, Lung-shu is the thirteenth, Bodhidharma himself being the twenty-eighth.

Lung-shu lived about the beginning of the Christian era, and was a native of Southern India. He is one of the very few historical personages in Buddhism who is honoured with the title of Bodhisattwa, or in the modern Chinese form *P'u-sah*. In the *Juh-Lanku-king*, he is represented as being foretold by name by Buddha. The following is what Buddha says of him. Addressing Ta-hwei, he said,—“Ta-hwei ! you should know that after my peacefully passing into the Nirvâna, in a future age there will be one who will firmly believe in my doctrine. He will be born in Southern India, will be a Bikshu of great reputation, and he will be called Lung-shu, *the dragon tree*. He will be able to conquer in argument upholders of false systems, and will make illustrious in the world my unsurpassed doctrine of the *Great development*.”

The work in which this passage is contained belongs to the ‘Great development’ school, and consequently was written several centuries after the time of Buddha.

A keen reasoner, acute thinker, and voluminous author such as Lung-shu deserves to be better known, and it is hoped that the following translation of one of his lesser works will prove not altogether useless in the elucidation of Buddhism.

It is called 壹輪廬迦論 *Yih-shu-lu-kia-lun*, *the Shastra of one shloka*. The three characters *shu-lu-kia* are in old Chinese pronunciation *sho-lo-ka*. When a double consonant begins a syllable, it is usual to employ the same vowel after each consonant in transcribing them in Chinese characters.

Shloka is a Sanscrit term for a couplet of a certain kind. I take the following account of it from Williams’ Sanscrit grammar. “The Institutes of Manu are written in the *shloka*, or *anushtubh metre*. This is the commonest of all the infinite variety of Sanscrit metres, and is that which chiefly prevails in the great epic poems of the east. It consists of two lines of sixteen syllables each, but the rulers which regulate one line apply equally to the other.” “The 1st, 2nd, 3rd, 4th, 9th, 10th, 11th, and 12th syllables may be either long or short. The 16th, as ending the line, is also common; so too the 8th.” “The 5th syllable ought always to be short. The 6th may be either long or short, but if long then the 7th ought to be long also, and if short then the 7th ought to be short also.” “The last four syllables form two iambs.”

The Hindoo author has in the present instance taken a single couplet as his theme, and hence the name of his short treatise.

This couplet, consisting in its Chinese form of four short sentences, appears at the commencement.

We are also informed by an introductory note that the treatise was translated into Chinese, from the original of *Lung-shu p'u-sah*, by the Brahman Gaudama Pradjnaluti, at the city Loyang, in the reign of the Yuen Wei dynasty. This city is that now called Honan fu, on the south bank of the Yellow River, in Honan province. The time of the translation is the fourth century of our era.

TRANSLATION OF YIH-SHU-LU-KIA-LUN,

THE SHASTRA OF ONE SHLOKA.

"My body (or substance) in its nature is not permanent ;

"Thus, then, my body is not a body.

"My body in its nature not being a body,

"I therefore say that it is empty and not permanent."

"It is asked—why write this stanza (Gâtha)? What is its meaning? What man's opinions is it intended to overthrow? I reply—It is written on account of those who in reading Shastras of great length grow weary, and also for those intelligent persons, who have studied many Shastras, and exercised their thoughts (deeply) in the sea of Buddha's law, but growing fatigued have begun to doubt about the doctrine, not by any means to be questioned or suspected, of the non-permanence of things and the nothingness of my own body. To destroy such doubts I have composed this Shastra.

"What says my doctrine? That all kinds of *acting* (*fah* 法) are non-permanent, and my own body is nothing. The non-reality of my body is not separate from the non-permanence of all action, my nature and my body being nothing. Therefore there is no such thing as permanence.

"All the Buddhas, and their disciples of the two classes *Yuen hioh* and *Sheng nen* (*listeners*, *shrâvaka*), have obtained their liberation from ignorance by means of this principle of nothingness, not by the opposite principle which maintains the existence of breaking off and of permanence in actions. The Gâtha says,—

"Lose sight of this principle of nothingness, and prefer to reside in body ;

"You then obtain a view of things as permanent.

"If you say that afterwards they are to be destroyed,

"You thus come to see things as having cessation."

"With this meaning I speak of all actions as being in themselves without real embodiment. The Buddhas, the enlightened (*Yuen hioh*), the listeners, and the Arhans, have gained their benefits and successes by believing in this principle.

"I will now speak of what men are to be opposed. If a man who has gained some knowledge says that without reference to action (*hing*), there is non-permanence, his view is not the correct one. If the so-called non-permanence is separated from existence (*yeu wei*), (or actuality), in order to be called non-permanent, then permanence becomes nothing. Thus then actuality and non-reality are not essentially different. If actuality and non-reality combine, the actual being joined to the unreal, a bottle cannot be broken (which is absurd, a bottle being an *actual* thing). If the unreal and the actual combine, the unreal being joined to the actual, the Nirvâna is destructible (which is absurd, the Nirvâna being not an actual thing). If the actual and the unreal are, as thus argued, identical, all kinds of teaching (or action *fu h*) are indestructible, like the Nirvâna, which is permanent, and is therefore not produced from any cause. If actions (*hing*) are not produced from causes, they do not differ from the empty Nirvâna. In this case the method or state of actuality (*yeu wei*) need not be called constant. But if the things done, being not produced from causes, are still non-permanent, then the empty Nirvâna is not called permanent. If this be true, the methods of actuality and of non-reality are neither of them good. If the non-permanent is parted from actuality and is still called non-permanent, then actuality apart from constancy ought to be called constant. But this is not correct reasoning. In which of the Sutras are there such words as these?

"What ideas are to be discovered upon? What meaning is there in that which you now say? There is much in it that is unreasonable, such as your crooked mind cannot fathom. Therefore what you say is not correct doctrine. If men who have gained some knowledge maintain that the (action or) law of the past, present, and future is in each case completed from and in itself, this is to be regarded as a false view. Why so? Because it is a view which omits the notion of cause. If we speak of the future as not being produced from causes, but as formed from and in itself, then the present is also not produced from causes, but is formed from its own nature. For the future and the present are in their

own nature even and equal, without any difference. If so, and the law of the present comes from causes, why in this case should not the law of the future come from causes also? You ground this view either on the Sutras, or upon your own judgment. But the statement is incorrect, and unreasonable. Being unreasonable it is not to be believed. If the law that regards the future is not produced from causes, but comes from its own nature, it must be an empty thing. Being cut off from any connection with causes, it cannot be produced from any cause. It is therefore not truly future in itself. But if the future is non-existent, then the present and past are also non-existent. The present and the past being non-existent, then time in its threefold aspect is really nothing in itself. If it be said that it has a real existence, this is to say that it is permanent, and is produced without a cause.

"If the disciple of Buddha thinks so, who has reached some depth in perception, he does not differ from the heretical teachers Kapila and others. This Shastra however is not made for such as Kapila and Uluka, but for you who hold the same views with me. What I have thus far said, in opposition to the opinions of certain persons, is for the sake of you who have made some advancement, that you may reject incorrect views.

"It is on this account that I have compiled this Shastra and the 'Gâtha of one shloka' (*Yih sholoka*), which commences my book. I shall now explain the meaning of this Gâtha.

"When it is said, 'my body in its nature is not permanent,' 'my body' refers to that which is born and acts, and which is therefore called 'my body.' He who has made advancement in right perception, being in the midst of this acting, thinks out for himself that this is the body (or takes it to be the body. This acting commences in the region of the physical and mental operations.* In it are involved also the *sheng wen* and *yen kioh* who wander circuitously (in this lower region). Thus when we speak of bodies, as one, two, or several, or of men, as one, two, or several, each is considered as having a body independent of the rest, and they are commonly spoken of as such. As earth, water, fire and wind are respectively hard, moist, hot and movable, each according to its nature; so every man (and thing) has his own form and substance. Hence the expression 'my body.'

* The human operations are five 五陰 *wu yin*, namely *shèh*, vision, *sheu*, reception, *siang*, thinking, *hing* doing, *shih*, perception.

"If he who has made some advancement in knowledge says that man in his birth, in his continued life, and in his death is the same in form, he speaks erroneously. The body of man is in its nature not permanent, and therefore its being called body has arisen from the circumstance that men who have advanced somewhat in true knowledge have made this distinction. Therefore apart from the various modes of action, there is no non-permanent body, because man is in his form not permanent.

"Therefore Buddha, in instructing the Bikshus respecting various acts, represents them all as not constant. This is on account of what has been already said.

"If it be maintained that, apart from acting, men and things are non-permanent, retaining their own form, such an opinion is wrong. Should you not understand why the phrase non-permanent is used, I will now explain it. It is because of what is said in the opening stanza, 'body is not body.' The notions of body and not body you easily distinguish. The non-permanent, what is it? It is without body. Therefore it is that body is not body. In its own nature it is not body, and therefore it is formally stated to be without body.

"When it is said 'my substance in its nature is not substance,' it is asserted that there is no substance but that which is not substance (*nu t'e*). For this reason it is said that substance in itself is not such. If you hold that there is some substance existing beside *nu t'i*, you are wrong; this mode of arguing is not that of the Sutras. If you assert that the absence of body (*nu t'i*) is what constitutes substance, this also is incorrect; because the Sutras do not say so. In what Sutra has Buddha, the world's honoured one, taught such a doctrine? It is not to be found in any Sutra, for it is not correct teaching (*king shwo*, the teaching of the classics); such arguments cannot succeed, because they are not the doctrine of the great holy Sutras; they ought not therefore to be believed. It is then not only my own words that I bring as evidence.

"The last sentence says 'therefore it is stated to be empty and not permanent.' Refer, for example, to the Sutra *Tian juh Sam-mih-t'i king*, *Narrative of Buddha pacifying and subduing Samidhi*, which says that Buddha addressed Samidhi with the words, 'The eye of man is empty and not permanent. There is no eye that does not move, that does not perish, that does not change.

And why? It is its nature so to do. The ear, nose, tongue, body, and mind, have all the same changeable and destructible nature.'

"Buddha, the world's honoured one, speaking in this Sutra of emptiness and non-permanence, on this account expressed the opinion here stated. Thus we know that all acts are empty and non-permanent. Being not permanent they are without body (*t'i*). Consequently all acts are in their nature and of themselves without bodily form. It is in this way that the meaning of the words *wu t'i, without body*, is established.

"If in this manner an opinion be tested by the Sutras, it will be well established. If it will not bear this test, it must fall to the ground. In my view, what is in the Sutras must be completely satisfactory. Therefore it is that the opinion that '(my) nature (*sing*) is in itself without body,' has been now employed to bring to its completion 'the Shastra of one Shloka.'

"All kinds of action (or existence) such as body, nature, act (doctrine), thing, matter, existence (*yeu*), are different in name, but the same in meaning. Whichever of these we speak of, the only difference between them is in the word *yeu*, to be.

"This word *yeu* is in the original language Sibhava.* It is translated in several ways, as 'the substance which gives substance to itself' (*tsi t'i t'i*), or as 'without action and with action' (*ru fah yeu fah*), or as 'the nature which has no nature of its own (*ru tsi sing sing*)."

ANALYSIS AND REMARKS.

The author begins with stating in a rhythmical form the principles he is about to establish. My substance or body i. e. my whole nature, material and intellectual, is a passing, changing thing, and is consequently not a real substance at all. It is therefore only right to say of it that it is empty and not permanent.

This principle agrees with the description given of the Buddhists by Colebrooke, who observes that they are called by their adversaries, the orthodox Hindoos, *Sarva-vainásicas* or *those who argue total perishableness*. They deny the permanent existence

* This word I suppose to be a compound of *bháva*, an important philosophical term. By Colebrooke and Professor Wilson it is variously translated, *dispositions, sentiments, conditions of being*. *Abháva* is privation or negation. *Prá-gabháva* is present negation of what will be. *Anubhava* is notion.

of atoms, and only allow that images of things are formed which immediately pass away.

The author then gives his reasons for composing the treatise, and the gâtha or rhythmical statement with which it commences. He wrote it for the sake of such persons as cannot read through the very long and tedious works found in the Buddhist library. He also wished to place in a short compass the argument for the transitory, unreal nature of all existing things, for the use of advanced students, lest they should be influenced by those arguments, self-suggested or presented by others, which go to prove that the world is real and that the information given by the senses is trustworthy.

The composition of Buddhist works is varied by the frequent introduction of passages in a rhythmical form, not indeed with rhymes or any fixed succession of long and short syllables, but with lines constantly of the same length. In the Nepaul originals there is also a difference in dialect between the prosaic and rhythmical parts, the Sanscrit and Pracrit being interchanged. There is no such transition of dialects in the Chinese translations. The rhythmical parts are called gâtha, 偈 *kiè* in old Chinese pronunciation *gut*.

The author lays down as his order of procedure, that he will first unfold his meaning, then attack the upholders of opposite views, and afterwards support his own opinions.

He holds that all kinds of action are transitory and not lasting, that the actor or observer is himself nothing real, and that these two things are connected. Hence the doctrine of non-permanence.

The Buddhas and their disciples, he says, had in the belief of the principle of nothingness obtained liberation (*môksha*) from the bonds which restrain the soul. The opposite doctrine which holds that things are permanent, or break off, has never had such an exemplification of its truth.

Colebrooke says that the followers of Kanâde maintained that things are partly perishable and transitory, but in part also unchangeable. His followers are called Vaisêshikas.

The disciples of Buddha here alluded to, *Yuen hioh* and *Sheng wen*, occupy the third and fourth rank in the Buddhist scale of being. Their position will be understood by the following scheme copied from a Buddhist work.

Four degrees in holiness (<i>sheng</i>).	Buddha. Bodhisattwa. Yuen kio. Shéng wen.	Intelligence. Knowledge and mercy. Reception gained by the study of causes. Listeners.
Six states of ignorance (<i>fun</i>).	Deva. Asuras. Man. Pretas. Animals. Naraka.	Gods, 天 <i>t'ien</i> . Monsters, demons. Hungry ghosts. Hell.

Four lines in the form of Gátha are here introduced, representing the doctrines of opponents. Two views are given, that which regards the universe as permanent, and that which describes it as liable to cessation. Both are considered as erroneous by the champion of Buddhism. Safety is only to be found in the doctrine of nihility.

In again appealing to the testimony of the Buddhas and their disciples, he mentions the Arhans. These form the last in a series of four grades of discipleship. The attainment of a certain amount of enlightenment in the Buddhist doctrine is represented as "fruit." These four grades of discipleship, or "fruits," are called, Su-da-wan, Si-da-gam, A-na-gam, and A-la-han. In Sanscrit these names are read Surtaban, Sagardagam, Anagama (?), and Arhan. They are also called the four paths to the Nirvâna.

Lung-shu proceeds to controvert by argument the opinions of two classes of reasoners, and first of those who hold the doctrine of non-permanence in an incorrect manner. It ought not to be held so as to deny the reality of action, or so as to confound action and inaction. These terms, in Chinese *yeu wei*, *nu wei*, may perhaps be translated actuality and non-reality. Their meaning will be seen by the illustrations used. An earthenware bottle is adduced as an example of an actual thing (*yeu wei*), while the Nirvâna belongs to the non-actual or *nu wei* class. These instances are brought forward to shew that things of the two classes of objects must not be confounded. For if actuality be identified with non-reality, a bottle, it is said, would become a non-actual thing, and it would be wrong to say that it was destructible. So if non-actual things were identified with what is actual, the Nirvâna would cease to be indestructible. The distinction then between the actual and the non-actual must be preserved.

The Sutras are again appealed to in proof of this doctrine. These works are thus seen to be, in the view of the Buddhist, the standard of truth. They contain the very words of Buddha, which are held to be necessarily true. Several hundreds of these books, thus shewn to constitute the *Scriptures* of this religion, have been translated into the language of China, and of the other countries where Buddhism prevails. These treatises are not said to be divine, or to be inspired, for the Buddhist has neither God nor inspiration in his creed. He only knows Buddha, the self-elevated human intellect, as the most exalted being, and he looks on his teaching to be the purest truth and the highest wisdom. Throughout the Shastra, which is now presented to the reader Lung-shu supports his opinions by the authority of the Sutras, which Buddha has left for the use of his disciples as the repository of his doctrine.

He goes on to overthrow the notion that the past, the present, and the future are self-produced and do not come from the action of causes. He observes that the present and the future are as to their nature similar, and controlled by the same laws, but the present results from causes, and therefore the future must also originate in the same manner. If the past, present, and future do not come from causes, he argues that they can be nothing real at all. The holder of such views would thus fall into the error of Kapila and other heretical teachers.

Kapila, here referred to, was a remarkable personage, perhaps the most noted of the Indian philosophers. He founded the Sankhya school. "This system," says Cousin in his *History of Modern Philosophy*,* "is at once a system of physics, psychology, dialectics, and metaphysics. It is a universal system, a complete philosophy." Cousin says of Kapila that he advocated sensualism, and that "one of the ideas which are most opposed to sensualism being that of cause, Kapila made an effort to destroy it. The argumentation of Kapila is, in the history of philosophy, the antecedent of that of *Ænesidemus*, and that of Hume. According to Kapila there is no proper notion of cause, and that which we call a cause is only an effect in its relation to the cause which precedes it, which is also an effect for the same reason, and continually thus, so that the whole is a necessary concatenation of effects, without veritable and independent cause."

* Translated by O. W. Wight, vol. 1.

Professor Wilson, in his learned comment on the Sankhya Karika, criticises this statement of the French philosopher, and denies that Kapila asserts the non-existence of cause. He admits however that "he may so far agree with the philosophers referred to, in recognizing no difference between *material cause* and *material effects*;" and adds that "his doctrine is that of Brown in his lectures on power, cause, and effect."

There being such a difference of opinion on the views of this Hindoo philosopher, it is interesting to notice in the treatise of Lung-shu that Kapila is incidentally condemned for denying the existence of cause. Our Chinese evidence goes to uphold the statement of the French philosopher where he is called in question by his English critic.

Colebrooke questions whether Kapila be not altogether a mythological personage. With this distinct allusion to him in our little work, dating indubitably from near the beginning of the Christian era, we may perhaps infer his historical reality, and we also obtain an approximation to the period in which he lived.

Lung-shu proceeds to say that he did not write for the purpose of confuting such philosophers as Kapila and Uluka,* but for the sake of correcting and confirming the views of the disciples of Buddhism.

The philosopher Uluka I have not found mentioned by Colebrooke or other writers on the metaphysical systems of India.

It appears to me that Lung-shu makes an unfair assumption, in his argument for the production of events from causes, where he asserts that the present proceeds from causes, and therefore the future does also, being in all respects similar to the present in its nature. He does not prove his assertion that the present proceeds from cause.†

As already remarked, Lung-shu appeals repeatedly to the authority of the Sutras. So the advocates of the Sankhya philosophy appeal to the Sutras of Kapila, which are however brief aphorisms, and not, like those of Buddha, long treatises. Yet Lung-shu has

* 迦毗羅 Kia-pi-lo; in the old pronunciation Ka-pi-la.

優樓迦 Yeu-leu-kia (U-lu-ka).

† A friend has however suggested to me that he may regard this as obvious, being what consciousness is ever teaching us.

besides this another test of the validity of doctrines, namely their reasonableness or unreasonableness. To this second test he here brings the doctrines he opposes, and condemns them.

In explaining the introductory stanza, Lung-shu first discusses the origin of the phrase "my body." He observes that it consists of the body and its actions, i. e. it means *myself*. In the region of mental and physical actions we come to the consciousness of *myself*. In this region the inferior classes of Buddha's disciples continue to wander partially enlightened.

Advancing from this incomplete view, we speak ordinarily of men and things, in the singular, dual, and plural number, as separate beings existing independently of each other, thus increasing the first error. The four elements, earth, water, fire, and wind differ in their nature, as being hard, moist, hot, and moving, and so each man and thing is looked at as having its characteristic differences from others. Hence the common but erroneous expression *my body, my self*.

Lung-shu complains that some persons maintain birth, duration, and destruction to be the same thing. He then proceeds to state that the body in its nature is not permanent, that its being called *body* has arisen from the distinctions which men in their ignorance have made, and that the correct doctrine of the body being non-permanent is inseparably connected with the various physical and mental operations which spring from the body, because, he adds, man is in his entire form non-permanent.

Buddha in the instructions he gave to the Bikshus, his disciples, always held the doctrine that actions are non-permanent. This must ever be kept in mind in making the statement that the body is non-permanent.

Bikshu is one of the names given to the followers of Buddha generally. They are also called *Shamen* and *Hoshang*.

The author then undertakes to prove the second sentence of his theme, namely, "Thus then my body is not a body." The doctrine of non-permanence has been introduced to aid in proving this. The non-permanent is necessarily unsubstantial. The things we see are liable to perish. Therefore they are not real things. We must speak of things as they really are. Hence the words "my body is not body," are correct and appropriate.

The third sentence, when it says "my body in its nature is not body," asserts that apart from the unsubstantial and the vanishing,

no body exists, and that therefore it is right to say of my own body that it does not exist.

Cousin, in his lectures already referred to, speaks of the psychology of Buddhism as being contained in two propositions, extracted by Burnouf from Buddhist books.

1st, Thought of spirit, for the faculty is not distinguished from the subject, appears only with sensation, and does not survive it.

2nd, The spirit cannot itself lay hold of itself; and in directing its attention to itself, it draws from it only the conviction of its powerlessness to see itself otherwise than as successive and transitory.

Burnouf adds, these theses are radically opposed to Brahminism, whose first article of faith is the perpetuity of the thinking subject.

We see that the non-permanence of things, which is so important a principle with our author, also pervades the books of Nepaul which Burnouf studied, and constitutes a watchword of Buddhism.

Lung-shu proceeds to observe that some persons hold false views on this subject. One opinion is that independently of the unsubstantial there is substance, but this is contrary to the Sutas. Others say the unsubstantial is my body, but this is wrong (although it is correct to say that my body is unsubstantial), because it is not found in the Sutas. Such are not the words of Buddha, nor are they met with in the great holy Sutas, and they must not be believed.

The last sentence, "I therefore say that it is empty and not permanent," is illustrated by appealing to the teaching of Buddha in one of the Sutas. He takes the eye as an example. There is no eye that does not move, that is not destroyed, that does not change. It is therefore empty and non-permanent. So it is with the other sensorial organs. The nature of them all is to change and decay.

The Buddhists in enumerating the organs of sense, after mentioning the eye, ear, nose, tongue, and body, add the mind. Lung-shu does so in this passage. The mind as the organ of consciousness is viewed as a sense. We limit the term sensorial organs to those which are material, but the Buddhist, not believing in the reality of material things, calls every organ by which impressions are communicated a sense.

Buddha having thus expressed his opinion in the Sutas, it is added, we know that all acts are empty, non-permanent, and

therefore without body. Thus we arrive at the doctrine that body does not exist.

It should be remembered that the Buddhists regard the acts of the thinking being as one with his substance. They do not distinguish between the agent and the act, but deny the reality and permanence of both in their unity. Thus they will say, as in this case, 'all acts (*yih ts'ih jah*) are without body,' instead of predicating this of the actor.

Hence also he proceeds to say that human nature is without body, resting this doctrine on the authority of the Sutras, and adding that it is the object of this entire treatise, "The Shastra of one Shloka" to illustrate it.

The same confusion of the agent with his acts presents itself in the closing sentences of the treatise, where it is asserted that all kinds of action, including body, nature, acts, thing, being, are but different names for the same thing.

All these varieties in phraseology, he adds, are but differences in the term *yeu*, *being*. The original word, adds the translator into Chinese, is *sibhava* which is variously explained "the substance which gives substance to itself," "without action and with action," and "the nature which has no nature of its own."

Bhawo, says Gogerly in his Essay on Buddhism,* is twofold,—consisting of moral causative acts, and the state of being. Of these, he adds, *kamma bhawo*, or moral causative acts, are merit, demerit, and all those actions which lead to existence. The various worlds of the Buddhist universe are designated by the term *bhawo*. Worlds of sensual pleasure and pain are *kama-bhawo*. The Brahma worlds are *rūpa-bhawo*. The incorporeal worlds are *arūpa-bhawo*, and so on. Here the term *bhava* means 'states of being.'

The numerous modifications of meaning belonging to this word help to account for the three translations of the related word *sibhava*, which close the treatise.

I may observe here that it is common with the modern Chinese Buddhists to defend the doctrine of the non-reality of material things by appealing to their liability to destruction. A priest will contend that a wooden table, on the application of fire, passing into smoke and ashes, there is necessarily nothing real in it.

* Quoted in Hardy's Eastern Monachism.

The truth is that reality and changeableness are both rightly affirmed of a table, or any other material thing. The Buddhist asserts with perfect correctness that the objects of sense are non-permanent, but he is wrong when he argues that therefore they are unreal. Christianity, modern science, and all sound philosophy agree in ascribing reality and changeableness to the objects of sense. Lung-shu erred in not seeing that these two things can be reconciled.



NOTE.

The following pages give a transcript of the original work in the Chinese character, the succession of the vertical lines being from left to right, which, although the reverse of the native method, is thought to harmonize best with the English letter-press.

出離、非於諸行斷常法中而得解脫、偈言

切法、自性自體空、是故無有常、一切諸佛緣覺聲聞、於空法中而得
斯論、說何義者、今當說、謂一切法無常、自體空、自體空、不離無常一
思、惟而生懈怠、於無常自體空、不異義中生異相疑、爲斷此疑、故造
廣大部生懈怠心、又爲聰叡先已廣習無量諸論、於如來法海義中、
問曰、以何義故造此一偈、論說何等義、破何等人、答曰、爲讀誦者、於
自體性無常、如是體無體、自體性無體、故說空無常

元魏婆羅門瞿曇般若流支於雒陽譯

龍樹菩薩造

壹輸盧迦論

事不然。若如是者，何等修多羅中作如是說。以何義說。汝今所說以
經有勝法。若無常離有爲，猶名無常者，則有爲離常，應名爲常。但是
非明緣生是無常者，則虛空涅槃不名爲常。若如是者，則有爲無爲
改若諸行，非因緣生，不異虛空涅槃者，則有爲法，不名無常。若諸行
合或則涅槃可壞，若不異者，則一切法不可破壞。如涅槃常非緣生
用，若有爲與無爲合，無爲合故，則瓶不可破。若無爲與有爲合，有爲
若無常離有爲無常，則常猶如虛空。若如是者，則有爲無爲體無差
故。破何等入者。今當說。若有所得人，離於諸行，說有無常，則非正見。
以此義故，說一切法自體空。諸佛緣覺聲聞羅漢於此義中得利益。
滅空住有體，則成於常見。若謂後時滅，則成於斷見。

羅等無差別。此論非爲迦毗羅優樓迦諸外道等。爲汝等輩同見之。若有體者。則是常見。無因生故。若佛弟子有所得見。則與外道迦毘則無異。未來體無未來。故現在過去亦無。現在過去無。故三世無體。緣生自性成者。未來之法。猶如虛空。無有因緣。離因緣。故非因緣生。爲依義說。說不相應。則無理趣。若無理趣。則不可信。若未來法無因。現在有法。皆從緣生。未來法何故非緣生。汝今此義。爲以修多羅說。非因緣生。自性體成。以未來現在。自性平等。無差別故。若性平等者。何以故無因生見。故若言未來體。非因緣生。自體成者。則現在法亦見。若人有所得。謂過去未來現在法。自體成者。當知是人。則非正見。何義說。汝今所說義。不相應。非汝邪思之所能量。是故汝說非爲正。

者彼無常無體是故體無體自性無體故言無體偈言自體性無體云何無常我今當說偈言如是體無體故體無體者汝所分別無常諸行皆悉無常以此說故離法有無常自相者是事不然若汝不了分別故生是故離諸法無無常體以自相無常故如佛告比丘一切得人謂生住滅同相者是義不然自體性無常故彼體名有所得人地水火風堅濕熱動各有自性如是各各自相自體故言自體有所轉如說一體二體多體如彼此人一二衆多各有自體故名自體如故名爲體有所得人於此法中心取爲體此法於陰界入中有聲緣論一輪盧迦偈句義今當釋偈言自體性無常者自體名有生有法人故造斯論向說破何等人爲令汝等有所得人斷除邪見故作斯

入修多羅其義則成。是故性自無體其義成就一輪盧迦論一卷。凡能如是入修多羅義其義則成。若不入修多羅其義則壞。以我所說義故。知諸法空無常無體。是故諸法性自無體。則無體義成。若是故耳。鼻舌身意亦復如是。世尊於此修多羅中說空說無常。以是經中說佛告三密提。眼空無常無不動無不壞無不變。何以故。性如應信。是故非唯言說而得取證。偈言故說空無常者。如調伏三密提羅中都無此義。以非經說故。不成就。非大聖修多羅所說之義。則不修多羅所不說。故世尊於何等修多羅中說如此法。於佛世尊修多義不然。以汝此法非修多羅說。故若謂無體是自體者。是亦不然。以者離無體更無別體。故言自體無體。若汝意謂離無體而有體者。是

無法有法、或譯爲無自性性、

或言物莫不皆是有之差別、正音云、私婆婆、或譯爲自體體、或譯爲諸法體性、法物事有名異義同、是故、或言體、或言性、或言法、或言有、

ARTICLE VI.

VISIT TO SIMODA AND HAKODADI IN JAPAN.

EXTRACTED BY PERMISSION FROM A LETTER FROM CAPT. A. H. FOOTE,

U. S. Ship *Portsmouth*, dated September 15th 1857.

Read before the Society, December 15th 1857.

THE passage of the *Portsmouth* from Shanghai to Simoda, as might have been anticipated, in the month of September, was long and dreary. The Sunday previous to our arrival "breakers ahead" were reported by the look-out on the fore-topsail yard. We stood on until they were plainly visible from the deck; by which time the ship was so near them, the wind being light and the current setting towards the newly discovered danger, that it was cleared with difficulty on the opposite tack. By right of discovery, as our charts showed a clear open sea in this vicinity, we named the danger "*Portsmouth Breakers*,"—which lie some thirty-five miles in a south-westerly direction from Simoda, and thirteen miles from the land immediately abreast of them. Had it been 3 A.M., instead of 3 P.M., when the danger was discovered,—and we had been running at night on several occasions equally close in with the land,—the cruise of the *Portsmouth* would have come to an abrupt termination. But a kind Providence spared our lives, and enabled us on the following evening, Sept. 8th, to anchor in the harbor of Simoda.

The appearance of the bay, in fact the entire country around Simoda, is strikingly picturesque and beautiful. Deep ravines lie between the mountain ranges; while the highly-cultivated terraced fields stretch up to the very hill-tops. Again green thickets were seen creeping up the valleys; and lawns of verdant turf here and there overlapped the precipices. The appearance of the town, it must be confessed, added no beauty to the scenery which surrounds it. As soon as we had anchored, a large boat came alongside with four officials, high in rank, who, in the name of the governor, (bear in mind the duality of the Japanese), gave us a courteous and

cordial welcome. These representatives were inquisitive, and manifested a degree of intelligence and culture corresponding to their urbanity and courtesy. We were favourably impressed with the cleanliness of person and dress of the officials, as well as of all the men in the boat; a practice which their celestial neighbors, in their houses, towns, and cities, as well as in person and dress, might advantageously adopt.

Mr. Harris, our Consul-general, welcomed us with that emotion which the seclusion for a year from one's countrymen naturally inspires. Leaving the Consul's we strolled through the town of Simoda, with its thousand small houses and numerous temples, followed by a crowd of men, women, and children, expressing in significant ways their gratification at our presence among them.

Simoda was formerly, from its position at the entrance of the bay of Yedo, a large town where much business was transacted, but has greatly declined and certainly now has the appearance of rather a poverty-stricken place. The streets intersect each other, in most cases at right angles. Several of the houses are built of stone, others of bamboo, and some are stuccoed with mud; while thatched huts are abundant. The roofs are generally formed of colored tiles, black and white. No chimneys are seen in Simoda; and the smoke from the cooking fires finds its way out of holes in the upper part of the walls, left open for the purpose. The slightly-constructed buildings are better adapted to the shocks of earthquakes, so prevalent in this vicinity, than a harder material would prove. The cleanliness of their houses far surpasses anything of the kind I have ever seen, the Quaker settlements in our country not excepted.

In every house is a platform of framework, occupying a good portion of the interior; this is matted with several thicknesses, giving it softness and an agreeable elasticity; and remains unsoiled, as every Japanese on entering a house, shop, or temple, leaves his sandals at the door. On the platform, comprising most of the interior of the house, the inmates eat, drink, sleep, trade, and receive company, the elastic mats forming a comfortable lounge or bed. A slight moveable or sliding bulk-head divides this platform into several compartments when required. The furniture is plain, and, according to our ideas, rather limited in quantity and variety. Neither chairs nor sofas, and rarely tables, are found even in the

residences of the officials. Transparent or rather thin light paper supplies the place of glass in the window-sashes.

The dress of the people is uniform and simple, being regulated according to the caste or class of the person. No ornaments are worn by either sex, as far as our observation extended. Even the little top cue of the governors, like that of all ranks, formed by bringing the hair from behind and the sides to the shaven part on the forehead, is tied by a piece of raw silk or thread.

The common people, as well as many of the officials, seldom get beyond rice and fish in their diet.

Thus you see the Japanese are as simple and frugal in their mode of life as were the Spartans of old. They are the best developed, most intelligent, healthy, and happy-looking people, we have seen on this side of the Cape of Good Hope. The married women, I am sorry to say, blacken their teeth, which adds nothing to their attractions; while the men, boys, and maidens, display snow-white rows of ivory, improved in appearance by the frequent use of the celebrated Japan powder.

The streets of Simoda are fifteen or twenty feet wide, and partly paved with stone. At the sides are gutters and sewers for draining the refuse water and filth into the harbor, or into a small stream running through the outskirts of the town,—another evidence of an advanced state of civilization over the Chinese.

While in Simoda I made an official call on the governors, accompanied by the Consul-general and four of the ward-room officers. The Consul and myself were seated opposite to their Excellencies on a bench level with their own, denoting equality; while the ward-room officers were placed on a level with the vice-governors and officers of corresponding rank. The Yedo spy was of course present, taking notes of all that was said. Tea and confectionery with pipes were brought in, and the whole ceremony was not unlike that with which we were received by the Chinese officers last year when at Fuhchow. The governors were well informed about our country, and evinced a strong desire to learn how the President and Government of the United States regarded Japan. One of them remarked that he hoped the day was not far distant when the Japanese would visit America. They readily admit our superiority, and seem to be strongly impressed with the power of our country. The frequent presence of this power is therefore imperative, with this people, to the establishment of trade and the

introduction of Christianity. The missionary and the commercial interest are equally benefitted by naval protection. For, as Christianity and commerce are carried into heathen and uncivilized lands, their supervision and defense necessarily follow. The governors were to have returned my call on the day following, but a strong wind and heavy sea, in the exposed harbor of Simoda, necessarily prevented.

We availed ourselves of this visit to Simoda to make extensive purchases in the beautiful lacquered-ware of Japan. This, with sundry articles, was taken from the shops to the bazaar, where the officials, supervising the shop-keepers, almost equalled the latter in number. The purchases of the officers for themselves and friends amounted to more than \$1,000. Goods exceeding \$40,000 in value were displayed. The price is affixed to each article, and no abatement is ever made. One selects what is wanted; the list is made up by the salesman and officers; an order is given, and payment made by weighing the Mexican dollars, which are now current, minus 6 per cent for the expense of recoinage into the Japanese *itsubue*.

The credit of equalizing the value of the Mexican and the Japanese currency of the same weight belongs to our Consul, Mr. Harris. Formerly the dollar was only current at one third of its weight. We are also under obligation to this faithful representative for the adoption of the following articles by Convention; in reference to which, he says, as the language itself will sustain, that missionaries and their families will enjoy the right of residence in Simoda and Hakodadi, from and after the prescribed time, the 1st of July 1858. Their liberty to preach and publicly teach the doctrines of Christianity does not necessarily follow. Still all American citizens, by the terms of the said Convention, will then be subject to American and not to the law of Japan. Such however is the desire to acquire knowledge among the people, that scholars of both sexes, in any number, can be secured for the purpose of being taught the English language. The future must be left to the leadings of His providence, who is evidently causing the portals of hitherto impervious, heathen, and uncivilized lands, to be thrown open wide for the introduction of Christian civilization.

"ARTICLE II. As it has been known that American ships coming to the ports of Simoda and Hakodadi cannot have their wants supplied by the Japanese, it is agreed that American citizens may permanently reside at Simoda and Hakodadi." * * * * *

"This article to go into effect on the 4th day of July 1858."

"ARTICLE IV. Americans committing offences in Japan shall be tried by the American Consul-general, or Consul, and shall be punished according to American laws."

Hakodadi, Japan, Island of Jesso, Lat. $41^{\circ} 50' N.$, Long. $140^{\circ} 48' E.$, October 5th. I now resume my narrative.

After remaining four days in Simoda we run out to sea, without a pilot, in the afternoon of the 12th ultimo, with a fresh easterly breeze; and after spending a thick moonless night, during which we were drifted forty miles by the current, found ourselves in the morning at the entrance of the passage between two islands, lying in our course towards Hakodadi. In the run of five days from thence we had variable winds, and until the day before our arrival, clear and pleasant weather. On the 15th ultimo, being some fifteen miles from land, the ship passed through a fleet of more than one hundred fishing boats, containing on an average twelve men each. The men in the boats offered us fish, and manifested no fear at our presence among them; in fact they were disposed to come alongside the vessel. The evening previous to entering the Straits of Sangar, the wind set in strong from the N.E., and a falling barometer at the same time indicated heavy weather. We stood in to the Straits however, having treble-reefed the topsails at 4 A.M. At 10 o'clock, the fog lifting and wind moderating, we found ourselves within thirty-five miles of Hakodadi,—the land being in sight six miles distant on either side; light variable winds, however, prevented our entering the bay and reaching the anchorage until 6 o'clock. A boat with two or three officers was then sent alongside by the governor, to ascertain who we were, and why we had come to Hakodadi; on being answered, a paper in English was handed to me, prescribing certain port regulations,—among them one forbidding the discharge of guns or fire-arms while in the harbor. I handed the paper back to the officer, telling him to say to the governor that men-of-war fired blank cartridges in any port whenever they had occasion to do so; and that such a paper ought not to have been presented to me. An apology by the officer, and afterwards by the governor himself, was made, averring that the character of the vessel was not remembered when the paper was presented.

On Monday, succeeding our arrival, I called on the governor, with our commercial agent, Mr. Rice, and three of the lieutenants of the ship; we were seated on a level with the governor and his

suite, denoting equality. The same cordiality and courtesy manifested at the interview at Simoda was here observed by the authorities. After an hour or more of conversation, at the suggestion of Mr. Rice I informed the governor that I had made a request of the commercial agent to procure fresh beef occasionally for us during our stay in port. The governor said that such a supply was impossible; that "the law of Nippon forbade it;" and that fresh beef had never been supplied to a foreign vessel of any character in Japan. I replied that our Consul-general, Mr. Harris, informed me that such supply could here be procured; and that Mr. Rice also had with him a letter from Mr. Harris, notifying him that this arrangement had been made; also that a supply of necessaries were guaranteed in the 2nd article of the Treaty, and the Dutch at Nagasaki, I understood, were furnished with fresh beef. I then referred to the 9th article of the Treaty, giving us all advantages of other nations. The governor was informed, as we rose to take our leave, that a treaty stipulation was above the law of the land of the respective parties, and that I should expect a bullock alongside the *Portsmouth* at 10 o'clock on the following morning. On reaching the residence of Mr. Rice, an officer was sent by the governor to inform him that two bullocks would be sent off to the *Portsmouth* at the prescribed time; which was done.

The following week the governor again declined furnishing the beef, but on a strong representation from Mr. Rice a bullock was sent off the following day. Considering it possible that the authority for him to act in this matter might not have yet come from Yedo, and as we had so readily obtained other supplies at a cheap rate, I intimated to the commercial agent that no further request for beef would be made at present; but that I should report the state of the case to the commodore, on my return to Hongkong, who would probably give definite instructions to the next man-of-war visiting Hakodadi, what course to take in this matter. In all other respects the authorities have manifested a desire to do all in their power to render our visit agreeable.

The governor and suite returned my call on Saturday, 26th instant, accompanied by thirteen boats with numberless streamers flying, which, with his large guard in uniform, was a display quite creditable to these orientals. I entertained him, with suite of ten or twelve, at my table, who were more expert with the use of the knife and fork than we had been with the "chop-sticks" on our

call upon his Excellency. The party freely partook of the viands, and seemed to have a high appreciation of the champagne. We saluted the governor with thirteen guns, and gave him an opportunity of seeing the explosion of our shells. I permitted his officers to take the dimensions of the ship; and enjoined it upon our officers and men, when on liberty, to treat the people with consideration and kindness. The result has been that we were welcomed by all classes, and I trust that our visit will have a good influence upon our future intercourse and relations with the Japanese. Great firmness with moderation, asking nothing but what is right, and letting them see that you expect that to be accorded, will enable us ultimately to establish ourselves on a good footing with the authorities and people of Japan.

The bay of Hakodadi is expansive and of easy access, especially with the chart of Perry's Expedition. The harbor is completely land-locked, and capable of containing two hundred sails in an anchorage from five to twelve fathoms. The shallowness of the water (a spit making out from the town a distance of twelve hundred yards) and the moderate ebb and flow of the tide render the anchorage perfectly secure at all times. This, with the healthiness of the climate, the means of supplies, the good disposition of the people, and the order of the government that no liquor shall be sold to persons on liberty, render it decidedly the most desirable place, in point of health and enjoyment, for a man-of-war, that I have ever visited; while its position to California, its importance to Russia, as a trade is opening at the Amoor river, and with the coal mines in its vicinity, make it worthy of consideration, not only as a place of frequent resort by our men-of-war and whale ships, but even as an auxiliary depôt for government stores. On the other hand, Simoda has but limited resources, while its confined harbor renders it of little or no value for commercial or other purposes. The well-sheltered and capacious harbor of Osaka, the port of entry for Miaco, ought if possible to be substituted for that of Simoda. If Osaka cannot be obtained, as Miaco is the residence of the spiritual emperor, Uruga, which is further up the bay towards Yedo than Simoda,—from whence the native commerce for several years has been tending,—might be selected as the port we must have in case the other is refused. Our Consul-general with his secretary at Simoda, and the commercial agent here, are the only foreign residents in the two ports open to us by treaty

stipulations. And in these desolate waters, in fact since leaving China, we have not been relieved by the sight of a single vessel except the native junks.

If you could fancy yourself cruising in the Mediterranean, the town of Hakodadi and the country around—were it not for junks in place of square-rigged vessels, and less pretentious private and public buildings on shore—would be taken for Gibraltar. Here it stands before me, the isolated rock of a thousand feet altitude, with its houses on the base and acclivity; there Europa Point; here the neutral ground separating the rock fortress from Spain; further on around the bay lies Algesiras; while on the opposite side of the straits the Pillars of Hercules, with Ceuta and Tangier, loom up, completing the resemblance. The scenery therefore is bold and impressive.

Hakodadi, in police and general appearance, bears a resemblance to Simoda, although the droves of pack-horses and general activity show a more enterprising people. The roofs of the houses slope down from the top, projecting with their eaves beyond the wall, and are covered with shingles kept in their places by slips of board, which have cobble stones laid on them to keep the shingles in their places. The shops are large and contain a greater variety than those in Simoda. Here is the *gayasha*, filled with lacquered-ware, crape, scarfs, silks interwoven with gold-thread, and furs, to say nothing of edibles in large quantities. Cheap books, with woodcuts, are seen in every house; these are drawn with freedom and a humorous sense of the grotesque and ludicrous.

We frequently hauled the seine on the smooth sandy beach, but with the exception of one salmon and several flounders, have realized nothing beyond the sport and excitement arising from hopes of "better success next time." In our rambles in the country I have occasionally taken a gun to assist the doctor in procuring birds and other specimens of natural history. One can hardly imagine the relief and enjoyment derived from our visit to this bracing climate, and free run around a country "where every prospect pleases and only man is vile."

But enough of Japan.—I have imposed a long penance, and will now grant you absolution after reading the following order just received from the imperial government at Yedo;—

"In Japan, from ancient time, bullocks were only used as for beasts of burden and for trade. But from this time they shall be fattened in a village near

Hakodadi, and ready to be delivered when you shall want them. At no other port in Japan will bullocks be delivered but Hakodadi. This you will understand and make known to your people."

P.S.—October 7th. One word more, as beef sometimes involves a principle. The governor having again refused supplies on the ground that the *Portsmouth* had had her share of beef, I called on his Excellency this morning, accompanied by the commercial agent and four senior lieutenants, directing the interpreter to say to the governor that "he must not send such messages to a man-of-war, it will not be permitted; that the order has come for the governor to furnish bullocks, and he must send two bullocks to the *Portsmouth* by 10 o'clock to-morrow morning, or there will be trouble, as he not only violates the order from Yedo, but also breaks the treaty by this refusal." The governor acceded to the terms, and offered as many in addition as might be required; and also promised a full supply to all American men-of-war, merchant vessels, and whalers, in future. On taking leave, his Excellency presented me with a box of Japan tea and two beautiful waiters from the City of Yedo.

ARTICLE VII.

RECORD OF OCCURRENCES IN CHINA.

PREPARED BY THE EDITORIAL COMMITTEE, June 1st, 1858.

GREAT events, rather than great men, characterize the times in which we live. We admire the deeds performed, while we scarcely notice the actors. Indeed, an advance in improvements, constantly more and more accelerated, seems to be the settled order of the day. This results, doubtless, not so much from superior genius and learning, as from accumulated experience and observation,—not so much from any masterly exploits of a few, as from the combined exertions of many. In numerous instances the events resulting from united efforts have become surprisingly great. Accepting this as the correct view of our times, we may fairly anticipate greater and still greater improvements, which in their good influences will reach the remotest parts of the Chinese empire. The construction and employment of new machinery, the extension of telegraphic lines spanning oceans and continents, with other works of like sort, seem destined to bring out new and wonderful results all over the world, so that its inhabitants everywhere shall rise to higher attainments in all that makes human life valuable.

As the Editorial Committee of the Shanghai Literary and Scientific Society, at this incipient stage of our labors, it is not our province to scan the motives of our fellow-men, nor will we try to notice the thousand minor acts that properly fill the columns and pages of daily or weekly journals. We shall be well satisfied if we can give the true bearings of a very few of the leading events which have recently transpired in this hemisphere,—if we can with suitable distinctness mark here an advance of truth, and of such truth as shall, as it gradually gains ascendancy, sweep away all those systems of error and of wrong that have hitherto in Eastern Asia prevented in large measure the prosperity of the people.

These few thoughts premised, we will proceed directly to recent events in China, and especially to those that have occurred at Canton and at the mouth of the river which is the grand thoroughfare from the Gulf of Chihli to Peking.

The occupation of the city of Canton on the 29th of December 1857, and the destruction of the forts at Taku on the 20th of May 1858, by the allied forces of England and France, mark the tide of events in different and remote parts of this empire.

The taking of the City of Rams was effected, as expected, without any very serious losses on the part of the assailants. That act and the capture and deportation of Yeh Ming-chin are memorable events, and as such will form a part of a long catalogue of occurrences reasonably to be anticipated ere this old secluded empire is made easily accessible along its coast and far into the interior.

The rendezvousing of an armed expedition in the Gulf of Chihli is another occurrence far in advance of anything witnessed there in bye-gone ages or even in our own times. Tribute-bearers have been seen there in great splendor, and there some demonstrations of power have been made on the part of foreigners. But hitherto all have been insufficient to answer reasonable demands. What are to be the issues, immediate or remote, of the present combined movement, we need not be anxious to ascertain. We may feel assured, however, that none but weighty reasons could have moved simultaneously the governments of four great nations, in circumstances and with interests so diverse, as are those of England, France, Russia, and the United States, to unite in one common suit,—all determined to have a better understanding with the court of Peking. This unprecedented movement is one of the signs of the times. and under an all-wise and overruling Providence will, we confidently anticipate, introduce new and better relations between the east and the west.

Before attempting to chronicle any of these recent occurrences, in their order, some prior ones must be specified as their antecedents.

Foreign monopolies in China ceased with the termination of the English East India Company's exclusive rights, on the 22nd of April 1834. A Royal Commission arrived at Canton that same year; and after a resolute but ineffectual attempt to open direct intercourse with the high provincial authorities, Lord Napier retired to Macao, where he died on the 11th of the following October. It was believed that his illness and death were caused mainly by the cruel treatment he received at the hands of the Chinese officers. The two main points of his offending were found in his requiring direct access to (or at least direct communication with) the emperor's high provincial officers, and on terms of equality.

The written correspondence that took place on that occasion between the parties at issue, should be carefully read by those who wish to judge impartially of the events that have followed, up to the present crisis. To the stand then taken by the governor-general of Canton and his colleagues no effectual remedies were interposed. Deep wounds were caused, but never healed, while they were greatly irritated by repeated acts such as that specified in the following extract, dated Canton, February 26th 1839.

SIR :—A gross and shocking outrage against the foreign community having been perpetrated by the Chinese authorities, by causing a man to be strangled this afternoon in front of our factories, we, the undersigned British subjects, most earnestly request that the British flag may not again be hoisted until reference has been made to Her Majesty's Chief Superintendent.

This note, addressed to the Deputy Superintendent, was signed by all the British subjects in Canton. Public affairs at once assumed a threatening aspect, and the bearing of the native authorities towards foreigners daily became more and more hostile,—in utter disregard of the remonstrances of all the resident Consuls.

On the 10th of March, Lin Tsih-hsü, as Imperial Commissioner, made his public entry into Canton, having large powers from his august master to deal with the *Fan-kwei*. A few days later, on the 25th, the whole foreign community were prisoners, shut up in their factories, and all intercourse between them and the Chinese people was interdicted. No parcels, nor even the smallest note, could be sent to Macao or Whampoa, except at the most imminent hazard of life. The struggle thus begun was steadily carried on,—in the surrender and destruction of twenty thousand and odd chests of opium, in the expulsion of all British subjects from Macao, and in three armed expeditions during three successive summers, till the signing of the Treaty before Nanking, on board H. B. M. ship *Cornwallis*, August 29th 1842.

By the terms of that Treaty the co-hong system was abolished for ever, twenty-one millions of dollars were to be paid, the island of Hongkong was ceded, and the cities of Canton, Amoy, Fuhchau, Ningpo and Shanghai were opened for the residence of British subjects, "without molestation or restraint." A treaty supplementary to this was signed October 8th 1843.

The Treaty between the United States and the Chinese was signed at Wanghia, near Macao, July 3rd 1844; and that between His Majesty King of the French and the Emperor of China was signed at Whampoa, near Canton, October 24th the same year.

At the request of the French ambassador, Lagrené, Kiying memorialized the throne, and on the 28th of Dec. 1844 an Imperial decree was granted for the toleration of Christianity. A question having been raised whether this was applicable to Protestants or not, an edict was issued on the 22nd of Oct., the following year, declaring that "all the great western nations being placed on an equal footing, only let them, acting well, practice their religion, and China will in no way prohibit or impede their so doing."

The right of entrance to the five cities above named and of residing within their walls was at once enjoyed, excepting only at Canton. There it was denied, and very soon became a vexed question, which unfortunately was left pending when the last instalment of the \$21,000,000 was paid and the island of Chusan restored to its original possessor. With a view to put this question at rest, the following was made one of the Articles of a Convention signed the 4th April 1846 by Sir John Davis and Kiying.

"His Majesty the Emperor of China having, on his part, distinctly stated that when in the course of time mutual tranquillity shall have been insured, it will be safe and right to admit foreigners into the city of Canton, and the local authorities being for the present unable to coerce the people of that city, the plenipotentiaries on either side mutually agree that the execution of the above measure shall be postponed to a more favorable period; but the claim of right is by no means yielded or abandoned on the part of Her Britannic Majesty."

Along with this Article another was introduced, indicating certain localities and limits "outside of the city" for excursions. These precautions, however, brought no amelioration; and on the 8th of July following the factories were assailed by a furious mob, which was quelled with no small difficulty, and not without serious damage. Again, in the following spring, an attack was made on a small party while on a trip to Fuhshan; and as a sequel to this, naval and military forces were moved up to Canton, dismantling, on their way up, all the forts at the Bocca Tigris with those on the river. "Seven propositions" were then agreed upon between Sir John Davis and Kiying, one of which provided that "two years from this day's date [April 6th 1847] British officers and people *shall have free entrance* into the city." On the 5th of the following December the massacre at Hwangchuki occurred, and after the two years had expired, Canton was still kept shut against foreigners, all treaty stipulations and remonstrances notwithstanding.

The views of the British government on the state of affairs at that time are seen in a note from the Foreign Office, dated Aug. 18th 1849. "You will say," writes Viscount Palmerston to

Mr. Bonham, "that the observations you are to make are as follows:—

"The Chinese authorities seemed, more than ten years ago, to believe that because Great Britain is far distant from China, the Chinese might with impunity ill-use British subjects in China. The Chinese officers found that they were mistaken. The British government sent ships and troops to China; the Chinese troops were conquered in fight, and the Chinese government was compelled to grant to the British government the satisfaction that was demanded for the injury that had been done to a British officer and to British subjects. The Chinese great officers at Canton seem to be falling again into the same mistake which was committed by their predecessors in 1839; and they appear to be, among the people of Canton, hostile feelings towards British subjects. But let not the great officers at Canton, nor the government of Peking, deceive themselves on these matters. The forbearance which the British government has shown is not from a sense of weakness, but from a desire to see the British government well understood."

The British government would be able to destroy the town of Canton, not leaving one single house standing, and could thus inflict the most signal chastisement upon the people of that city.

"The British government, however, would be very sorry to be compelled to resort to such measures of severity, and will avoid doing so as long as possible. But the Chinese government and its officers must assist the British in its endeavors so to forbear. The government of Peking must take care that the treaty engagements of the Emperor of China are strictly observed, and that the officers at Canton must be diligent to inspire in the neighborhood with friendly sentiments towards British subjects. So will peace be maintained between the two empires, and so will commerce flourish between them, to the mutual advantage of both. This is the wish of the British government; let it also be the wish of the government of China."

Such was the state of affairs, and such the attitude of the two governments, when the case of the *Arrow* raised again the vexed questions of direct access to the high provincial authorities within the walls of the city and on terms of equality. Each of the two evidently had long since defined its principles and course of procedure. It was not any one single act, but scores of acts, that had brought matters to the issue that was then made. The time had come for the *ultima ratio regum*.

Seven years after the above admonitory notice was given by the British government to the Chinese at Canton and Peking, Admiral Seymour, having bombarded Canton, visited the premises of the governor-general within the city walls. The foreign factories were burnt on the 14th of December following. Thus the contest went on till, as already stated, the city was taken by the allied forces and Yeh made prisoner.

Lord Elgin's dispatch to the high commissioner Yeh, delivered to him a few days previously to the fall of the city, must here be referred to. It is dated Dec. 12th 1857; it states that he is the bearer of letters of credence to the Emperor of China; that he is invested with full powers to settle certain difficulties and conclude

a treaty with any minister holding similar powers; it then alludes to the treaty of 1842, and to the one exception to the favorable state of affairs at the five ports, indicating a few leading incidents, declaring that "*the season for remonstrance is past*, and that the governments of England and France are united in their determination to seek, *by vigorous and decisive action*, reparation for past, and security against future, wrongs:" the dispatch then closes with these three emphatic paragraphs.

"Under these circumstances, the undersigned thinks it his duty to state distinctly to the Imperial Commissioner, that he cannot assume the responsibility of arresting the progress of hostile operations against Canton, until the following demands of the British Government are absolutely and unreservedly conceded: the complete execution at Canton of all Treaty engagements, including the free admission of British subjects to the city; compensation to British subjects and persons entitled to British protection for losses incurred in consequence of the late disturbances.

"If these moderate demands, and those preferred on behalf of the Emperor of the French by His Imperial Majesty's High Commissioner and Plenipotentiary, be frankly accepted by the Imperial Commissioner Yeh within the period of ten days from this date, the blockade of the river will be raised, and commerce will be permitted to resume its course. But the English forces, in conjunction with the forces of the French, will retain the Island of Honan and the forts on the river as a material guarantee, until the terms of a Treaty for regulating these and all other questions pending between the Government of Great Britain and that of China shall have been agreed to between the undersigned and a Plenipotentiary, of equal rank, appointed by the Emperor of China to negotiate with him, and until the Treaty so agreed upon shall have been ratified by their respective Sovereigns.

"If, on the contrary, the Imperial Commissioner shall meet these demands by a refusal, by silence, or by evasive or dilatory pleas, the undersigned will deem it to be his painful duty to direct the naval and military Commanders to prosecute, with renewed vigour, operations against Canton, reserving to himself the right to make, in that case, on behalf of the British Government, such additional demands on the Government of China as the altered condition of affairs may seem in his eyes to justify."

It should be observed here in passing that so far back as Sept. 1856, official notice was given by the French government to the English that reparation would be demanded for the murder of the French missionary Chapdelaine, and if necessary by force.

Shortly after the occupation of Canton, we find the representatives of the Four Treaty Powers on their way from the south to Shanghai, having severally first dispatched communications to the chief cabinet minister at Peking. Answers to those, received here, being unsatisfactory, they again addressed others in like manner; and early in April proceeded in person to the Gulf of Chihli, where, negotiations failing, more vigorous action was renewed.

We have much confidence in the prudence of those, who, under a wise Providence, are charged with the direction of this movement. Lord Elgin, Baron Gros, Count Poutiatine, and the Hon. Mr. Reed

are men of high repute, have devolved on them weighty responsibilities, and their objects may diverge on unimportant points: Russia has a boundary line to settle, France her form of Christianity to vindicate, England her commerce to foster, and America such objects to gain as will enlarge her influence; but all are united, we believe, in agreeing to such measures and demands as will open this empire to all nations. May the Almighty, in his mercy and for his glory, crown their action with complete success.

From *Peking* there have been of late unfavorable reports touching the health and habits of the young Emperor, and the disposition of the people,—at present topics of more than usual interest. It has been said that the ladies of the Emperor's harem are learning to ride on horseback, so that in an emergency they may be ready to make their escape to a more northern latitude, perhaps to the ancient capital of the Manchu race. Hien-fung was born in August 1831, and ascended the throne in 1850, then in the nineteenth year of his age. Surely he has fallen on inauspicious times!

On the 27th of December last, two days before the fall of Canton, the city of Chinkiang was reoccupied by the Imperial troops—the long-haired rebels having evacuated it and retired to Nanking. In the other provinces it is not known to us that any important movements have been made by the followers of Hung Siu-tsiuen. On the western frontiers of Chehkiang and Fuhkien some advances have been made by the insurgents, during the last spring months; but whether their cause, taking it all in all, is waning or waxing stronger, we do not know; nor do we know whether Hung himself is dead or living.

The report of the rising of the Mohammedans in the province of Yun-nan, noticed in the *Far East*, is now confirmed by intelligence received here from the provincial capital, which has committed suicide.

Passing now, from the Empire of China to “the surrounding nations,” we find only a few occurrences to record, yet more than enough to fill up the short space assigned for this Article.

From *Japan* there has been current a rumour that its government is about to make new and important modifications in its foreign policy. This is probably true, though Captain Foote's letter, as given on page 111, does not afford any very palpable evidence of such a change; but his letter does, however, indicate in the Japanese a tendency in the right direction.

From *Liuchu* the Rev. Mr. Morton, the missionary successor there of Dr. Bettelheim, has been compelled to withdraw, for a season at least, on account of personal infirmity induced by his residence in that climate.

In *Cochin-china* troubles exist, and of such a nature, it is said, that a French naval force will move in that direction, as soon as some graver matters in China shall have been settled.

From *Siam* a royal messenger, an envoy, has been sent to Europe. This may be a small matter, but it augurs well. The Siamese kings are certainly showing themselves to be under some new influences; and by encouraging Christianity, modern science, and commerce, they are in the right way to make good the claim to their native name *Muang Thai*, “Kingdom of the Free.”

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PREFACE.

SINCE the publication of the first No. of the JOURNAL OF THE SHANGHAI LITERARY AND SCIENTIFIC SOCIETY, the Society has become connected by affiliation with the "Royal Asiatic Society of Great Britain and Ireland." This step was contemplated from the commencement, and it was only pending necessary preliminaries that the designation of "Shanghai Literary and Scientific Society" was provisionally adopted. The relationship thus newly entered into having involved a change in the name of the Society, this second No. of the Journal consequently appears with the new title of JOURNAL OF THE NORTH-CHINA BRANCH OF THE ROYAL ASIATIC SOCIETY.

The contributions since our last issue warrant us in looking forward to a sphere of much interest and usefulness in the future progress of our juvenile institution; and in making a selection from these for the number in hand it has been our aim to give variety of subject, bearing in view especially questions touching on our present position in the east. Fortunately the range of our operations give ample scope to such diversity, and the rich field for literary, scientific and antiquarian enterprise which current events are opening up to us, encourage the assurance that the undertaking we have embarked in is destined to secure results of no mean importance in the future.

We refer with much satisfaction to the elaborate paper of Captain Ward on the navigation of the Yang-tze Kiang, highly important in itself, as anticipating the openings to commerce in that direction,—interesting by comparison, as being probably the first scientific survey of a river which has been constantly navigated for upwards of two thousand years,—and of some value as confirming so far the accuracy of the survey of the empire by European mathematicians at the commencement of the present dynasty.

From Captain Shadwell's Magnetic statistics we are taught the valuable aid which may accrue to that partially developed branch of science, by a steady course of careful observations in this hitherto secluded region.

The article on musical notation by the Rev. E. W. Syle, though brief, is an interesting addition to our knowledge—by one who has studied the subject *con amore*—of an art which has been cultivated by the Chinese from remote antiquity, and with regard to their theory of which we are yet but very imperfectly acquainted.

In the unexplored department of Chinese literature, the names of the Rev. Joseph Edkins and Dr. Macgowan are a sufficient guarantee of originality; and the respective contributions of those gentlemen are calculated to throw light upon the state of letters in this peculiarly literary nation.

Turning our attention from China to the islands on the east, we find every incident relating to the Japanese nation replete with instruction; and at the present peculiar juncture of our mutual relations it is natural that information

should be eagerly sought for. It is gratifying to us to be able to contribute towards the dissemination of such information. Through the kindness of Dr. Williams we now present our readers with a comprehensive epitome of Japanese affairs. While much may be gained from the works of Siebold, Thunberg, Titsingh, and other writers of the Dutch school regarding bygone times, it is most important to have their statements confirmed or refuted by an actual witness of the state of matters at the present day ; and from his extensive sinological researches perhaps no one is better qualified than Dr. W. to fulfil the task. The remarkable contrast between the conservative exclusiveness of the sons of Han and the thirst for knowledge recently displayed by the natives of Japan is a study deserving the attention of the ethnologist. Much curious information bearing on this point is given in the paper of Dr. Van Meerdervoort.

The Island of Formosa has also furnished us with two valuable papers from the pen of R. Swinhoe, Esq. As this is comparatively unexplored ground, we trust the future will put us in possession of the means to satisfy the desire for further details induced by Mr. Swinhoe's contributions.

Much new information may be accumulated by navigators in these eastern seas, and we would respectfully remind those gentlemen who have the opportunity that the object of our institution is to afford the means of circulating such information for the public benefit. In connexion with this we would acknowledge the urbanity of Capt. Fedorovitch in transmitting to us his meteorological observations, which is an initial step in the right direction.

It may be well to notify to our readers that most of the papers are printed in the absence of the authors; while it is just, therefore, that we relieve our contributors from the onus of typographical and other imperfections, which will unavoidably creep in even when following carefully executed manuscripts, we would also crave indulgence for ourselves in cases where, in the absence of authority, we may have been betrayed into errors of judgment. In the orthography of Chinese names we are particularly liable to this failing, and with the greatest care it is almost impossible to secure a faultless sheet where many such words occur. Even among sinologues who are well acquainted with the Chinese character we are very far from having attained to anything like uniformity. Under such circumstances it can scarcely be expected that stranger to the language will succeed where the initiated have so signally failed; and it need not be a matter of surprise, therefore, that great diversity obtains in Chinese names, however much this practice is to be deprecated.

Ed. Com.

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JOURNAL
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ARTICLE I.

NARRATIVE OF A VISIT TO THE ISLAND OF FORMOSA ;
BY ROBERT SWINHOE, ESQ., OF H. B. M. CONSULATE AMOY.

Read before the Society, July 20th, 1858.

HAVING had the pleasure of accompanying H. M. Str. *Inflexible* as interpreter, on her late expedition to Formosa in search for information relative to the rumor of the detention there by savages of Messrs. Smith and Nye, a few notes, extracted from my journal, will perhaps not fail to be of interest to the members of this Society.

Leaving Amoy on the afternoon of the 7th June 1858, and passing the Pescadores, we arrived next day off *Koh-si-kon* and anchored about a mile from the shore. All we could see of the land was a sandy beach, interspersed with patches of woodland, and a line of trees extending some distance inland at the foot of an indistinct range of hills. On the 10th, the wind blowing from the shore and the surf beating less heavily, we managed to effect a landing in the gig close to some huts. The inhabitants—Chinese fishermen—came out to meet us in a good-natured manner: we explained to them our object, and distributed some proclamations amongst them, offering \$50 reward for every shipwrecked European and \$20 for every Asiatic. These poor people live in straw huts, in front of which they hang their nets on rows of poles. A few

pigs formed their only live stock. We learnt from them that their families lived further inland, and that they visited this sand shoal only at various seasons to prosecute their fishing.

These shoals are not large, and are surrounded on all sides by shallow water. On most of them there were huts. The banks consisted of a mixture of mud and sand, on which a vast number of *Tiger-beetles* (*Cicindelæ*) were moving about. They ran very fast, and if pursued took immediately to their wings. Their food seemed to consist of the flies and small *Diptera* found in the neighborhood of the huts. A few of the Lesser Tern (*Sterna minuta*) were seen flying about us.

Getting into the boat and passing over a bar, with only one foot of water, across which the *Saracen* was able to pass when on her Surveying expedition, we ran the boat alongside another sandy island. The few Chinese here were equally as civil as those on the other shoal; and the same beetles abounded. Neither of the shoals had a sign of vegetation; indeed from their appearance they must be under water a good part of the year. We saw only one junk, and that was drawn up on the beach; all the other native craft were catamarans, formed of large bent pieces of bamboo lashed together and fastened to other pieces stretched crosswise on the top, with a mast and sail when required. These catamarans are wet it is true, for the water flows constantly over the feet of one standing on them, but they are well adapted for encountering the surf.

The ship got under way at five o'clock and was soon riding at anchor off Fort Zealandia.

June 11th—Early this morning the gig and the cutter left on a visit to the mandarins of Tai-wan-foo, the capital of Formosa. We were at first doubtful by which channel we could enter, whether by Fort Zealandia or some way further north past a group of junks; but luckily we fell in with a fishing catamaran, and taking one of the semi-nude fishermen into the gig, he piloted us round the sand spit, over which the surf beat violently, and into the channel close to Fort Zealandia. This Fort, which 200 years ago was erected by the Dutch to beat off the Fuhkëen pirates, was now in ruins; a large tree has grown out of the centre, and the west wall, some twelve or fifteen feet in thickness built of bricks and chunam, was battered down and the materials used for the erection of mandarin dwellings.

About two miles distant from this Fort, the city of *Tai-wan* was approached by a shallow canal, in many parts not more than forty yards broad. The banks were high and intercepted our view, but the pretty green Goat's foot creeper, with its convolvulus-like purple flowers, gladdened our eyes, as we glid along, and the merry carol of innumerable larks (*Alanda minuta*) in the air beyond our ken showered melody upon us; verifying Tennyson's beautiful idea—

"The lark became a sightless song."

When arrived at Paksekwei, in the suburbs of the city, we were obliged to halt the boats, as there was little water beyond. We then sent a despatch to the Taoutai, and one to the Chintai, by a messenger, and proposed to meet them at 12 o'clock in the Yamun of the former. At that hour, after a walk of three quarters of a mile, we arrived at the Taoutai's Yamun, where we were met by some of the underlings, who desired us to repair to the Prefect's office, as that was a more central place for all the officials to meet in. After some consideration we acceded and one of the petty officials acted as our guide. On reaching the place before the Taoutai and other officers arrived, we were requested to walk into the waiting hall; but we preferred standing at the gateway, with the marines and blue-jackets stationed around us to keep off the crowd. Presently we heard a cry of "The Taoutai's coming," and three Chinamen with buttons came riding in without any order through the gate, the foremost bowing as he passed to the marines who stood on the left. I thought of course that these were the usual equestrian precursors of the great mandarin, and consequently did not take much notice of them; but imagine my astonishment when I heard it was the Taoutai himself on the foremost horse, a pretty spirited little animal. A civil mandarin was actually riding on an *unled* pony!

Virgil would here have said, "*haud mora*;" not so the Chinese. Some more delay took place, and we were at last admitted into the reception hall, where we found assembled the Taoutai, the Hee-tai, the Chefoo, and the Chelien. The Chintai, whose dwelling was some distance off, did not arrive till a later hour.

The Taoutai, Kung Chaou-tsze, declared himself willing to assist us by issuing a proclamation to accompany ours, to be distributed throughout the towns and villages under his jurisdiction; and if any shipwrecked foreigners were discovered they would most

assuredly be sent across to Amoy. He said that he had lately arrived from Foochow; no wreck had yet come to his knowledge. He had heard of the aboriginal Sang fan, or raw savages, on the hills, but had never seen them; they were a savage race, who fed on raw flesh, and never spared any one that fell into their hands; it was almost impossible that Messrs. Smith and Nye could be in thralldom under them, they would long ago have eaten them; if they still existed in the sulphur mines near Kelung it was impossible to ransom them, as the savages know not the value of money; the Chinese had no dealings with the savages, excepting those who were domesticated, and who traded with the settlers; a thousand dollars was a large sum to offer for a man; there was no necessity for a reward at all on our part; if there were any foreigners cast away, the Chinese would ransom them and send them across the channel to Amoy. If any one who had been shipwrecked should be brought to Amoy we might reward his deliverer, but there was no necessity for it; they would attend to that themselves.

The Chintai soon arrived, a large, good-humored, full-faced man, with a few straggling hairs for a moustache. His name was Shaou Lien-kaou, a native of Foochow. He cruised about occasionally on the coast, and had been to Kelung and Tamsuy; there were, he said, no pirates on the coast now; he had seen a few, but they always ran away when he approached; there was very little coal in Kelung, and that difficult to be obtained.

On our asking these officers to permit the people to sell us provisions, they said they would make us a present of some. Chairs were now sent for, and, taking leave of the Taiwan mandarins, we returned to our boats. The tide had gone down considerably and we found it impossible to get the boats afloat, so we landed and strolled about. Inside of the banks there was nothing but muddy sand intersected with streams. A species of crab, with one large white claw, dotted the mud like flowers. They were very quick, and off in an instant into their holes. Birds were scarce; a Caspian and a Lesser Tern (*Sterna caspia* and *minuta*) and a few Kentish Plovers (*Charadrius Cantianus*) were all that I saw. Provisions were absurdly dear, but the mandarins kept their word and sent us off a fair supply. We had some difficulty in getting out of the river, as the tide did not rise till late in the day.

June 12th—We were off Takow, commonly called Ape's Hill from the large-sized *Monkeys* that abound on it. The passage into the harbor is very narrow; and as the tide was running out, there was a heavy swell at the mouth. The harbor, though small, is commodious for a few vessels of moderate draught; and, as it is nearly land-locked, affords very safe anchorage. A receiving-ship lay inside of the harbor, with a fine godown on shore belonging to the same parties; but trade, we were informed, was slack; there was some sugar, but it commanded high prices; and rice too just then was to be bought at cheaper rates in China than there.

The natives were drying a vast number of small white fish, spread out on the sand in the sun, which when dried are taken away in large bags by the junks. Several junks lay in front of the chief village, in the harbor *Kee-aou*. We walked through this place, and found many of the houses, built under large Banyan trees, surrounded by a thick hedge of the Prickly Pandanus or other impenetrable shrubs; and approachable by narrow zigzag lanes. Here under the shade of these fine spreading trees the female members of the family would be sitting at work, while the men were in the fields. But the neighborhood of Takow, visited as it constantly is by foreigners, is too well known to require further remark.

June 14th—We weighed anchor at five o'clock, and after two hours dropped again off Fang-leaou, (in the chart marked Pang-le,) a village twenty-five miles south of Takow. We now tried to get ashore in the gig and cutter, but found the surf so great that the boats were obliged to anchor, and we had to land in catamarans with the water washing up to our knees. This village is at war with the one we were going to visit, Laileau, where Bancheang the outlaw chief lived. But we were not molested while led over some lovely country; the rice fields however were lying waste on account of the disturbances. We passed through one village, Chuyleaou, built in the midst of lofty bamboos, where we found fine broad lanes marked with cart ruts. The scenery was a good deal like that in Ceylon.

After walking a few miles we arrived at Laileau, situated at the bottom of the first range of hills and surrounded by a hedge, backed by tall graceful bamboo trees, with a fosse partly encircling it on the side of the hills. There were two entrances, one of which was closed. Bancheang's house, with an upper story, occupied

the east side; and all about within the enclosure were ranged the houses of his dependants; over his door were written the words *Wan Ke*, and spears and other arms were lying about in his courtyard. "The Hero in his house we found," not as we expected to meet him, a dashing Robin Hood, but a thin stooping elderly man, with bad teeth.

In asking us to enter his house he displayed none of the politeness and affability common to the Chinese. He was wedded to a savage woman; perhaps he had taken lessons from her. We told him the object of our present visit, and questioned him about a foreign Ring and Telescope, said to have been once in his possession, and to have been presented by him to some mandarin. He denied all knowledge of the affair, and assured us that he had never heard of any wreck on his part of the coast, since the loss of the *Larpernt* in 1851 near Langkeaou. He made the captain a present of a bow and some arrows used by the savages, with whom his people traded, as also some cloth manufactured by their women from the bark of a tree, with which he was not acquainted.

We then took our leave; and, returning to Pangle, had a look at the village as we passed through the streets and called upon one of the officials stationed there. The Chinese officers have had a great dread of Bancheang ever since their last expedition against him: They sent an army of a thousand men to invade his territory; and when within shot-range, Bancheang himself loaded a gun and discharged it at the invaders, knocking over eighteen men at one discharge. The Imperialists were bewildered and immediately made good their retreat!

Among the bamboo woods, Orioles (*Oriolus Sinensis*) were very abundant, and Black Drongos (*Dierurus Malabaricus*) were swinging to and fro in their nests, suspended from the bending bamboo boughs. The *Tiger Swallows*, winter visitants in Amoy, were building their nests under the overhanging roofs of the shop-sheds, some of them within arm's reach. These nests were built of clay in an oval form and lined with feathers, resembling much the nest of the English martin (*Hirundo urbica*), and contained three or four pinkish white eggs.

We now repaired to our ship and got nicely drenched in working off the catamarans against the surf.

On the 15th we were at anchor in Langkeaou bay, where the surf presented difficulties as at Pangle against our effecting a

landing, but we managed to get on shore not far from the village on the south side of the bay. The natives, more or less, are half-breeds, and many of the women are pure aborigines. They were mostly fishermen, though they had a few cattle grazing on the neighboring hills. They could give us no information, except what we knew before about the crew of the *Larpernt*.

Past Langkeaou, further south, the hills extend right to the sea, and the savage roams over them at large. It was here the crew of the unfortunate *Larpernt* were cruelly murdered by the natives, with the exception of the three men who escaped into the hands of the Chinese and were by them treated with kindness, till they were enabled to get a passage to Amoy.

June 16th—Bad weather now coming on, we were obliged to pass the south cape at some little distance, and steering north and passing in sight of the islands of Botel Tobago and Sama Sana, we then stood in and coasted along past Black Rock Bay. The hills, some of which were of a good height, were covered with vegetation, and one peak, which we caught a glimpse of through the clouds that encircled it, had a flat top like a crater. There was no appearance of natives, except some lights that were visible at night on the hills.

On the 17th of June we were off a place in lat. $24^{\circ} 6' 18''$, where a river is marked on the chart. A ravine runs between the hills, but there is only a small mountain stream. The ship was about eight hundred yards from land, yet we got no sounding at one hundred and fifteen fathoms. The morning was fine with very little sea, so we pulled away for the shore in the gig, steering towards a collection of huts at the foot of the hills. As we approached the land, the deep blue waters of the Pacific were divided from the coast-waters by a distinct line, so that one part of the boat was in the colourless, the other in the deep cyanean blue waters! When only one hundred and fifty yards from the shore, we sounded with eleven fathoms of boat line and got no bottom; when at about fifty yards we had eight and a half fathoms. Several natives appeared on the beach, many of whom were Chinese; but among them we could distinguish six men who were almost in a state of nudity, wearing only a piece of cloth round the waist with a flap in front.

These latter were armed with spears and sabres in a sheath, stuck through the girdle and hanging behind. Their hair was

short and fringed on the forehead; behind it hung loose. They had a good deal of the Malayan cast of countenance, but were much fairer than Malays and slightly fairer than the Chinese, who were with them. Their arrows singularly enough have on feathered shaft. The surf was too great for the gig to go in close to the shore, so we called the Chinese, who were pushing a boat into the water, to come out to us. They were just going to shove off when four of these savages jumped into their boat, and the Chinese, finding they could not hold them back, beckoned us to go away. The savages meanwhile, enraged that they could not get out at us, began to shake their spears and brandish their sabres with threatening gestures; but a shot fired over their heads soon put them to flight and they took shelter behind a mound. The Chinese then came off to us; and taking one of them into our boat we asked him various questions.

These savages, according to his account, were called Tai-lo-kok and their tribe numbered about four thousand; they inhabited the surrounding woody hills and subsisted on sweet potatoes, taro and deer's flesh; the bare patches of land we saw on the hills were cleared away by them for cultivation. The greater part of the hills was thickly covered with Camphor trees; and the boat they were in was made of Camphor wood. He said there were about two hundred Chinese in the village, who subsisted on the produce of their fishing; they had been sent there, many years ago, by the mandarins (and were probably convicts); if we were to kill any of the savages they would avenge themselves on the Chinese, for the savages had arms, the Chinese had none. A village that used to exist a little further up the coast where we could see a wreath of blue smoke rising, had been burnt by the savages and every one killed. One man, who had lived here fifteen years, had never seen or heard of any wreck. Foreign ships had before been seen passing by that place, but none had ever come so near to the land as ours.

We now gave these Chinese, who had come off to us, some proclamations offering rewards for shipwrecked people, and asked them to bring off one of the savages, that we might, through an interpreter, get some information. They returned on shore and explained the matter to the six savages who were squatted apart by themselves, but they would not venture off. Fearing that, if we remained any longer so near them, these wretches might make

our visit a pretext for wreaking their vengeance on the Chinese, we returned to our ship without molesting them further. It seems very strange that so savage a race of men should have existed for so many years close to the abodes of civilization; but their wooded hills form their best protection. The Chinese mandarins doubtless have done all in their power to exterminate them, but without success. With a view to their destruction, tigers even were brought over from China and let loose among them on the hills many years ago, but the savages were found to be too skilful hunters to allow themselves quietly to be eaten!

Getting under way, we passed some lovely mountains of an immense height, covered to the top with wood. At times their summits only were visible; then gradually they would stand out in bold relief, as the clouds cleared away. A valley was now seen running from the beach right through between the hills; but no river or stream was visible.

As we neared Soo-au bay, we fell in with several small boats, pulling out from shore. Calling to one of these, we took a man on board and the boat in tow. The people in the boats were Chinese and half-castes, who gained their living by fishing and were then out seeking for *flying-fish*. With a few directions from this man, we cast anchor outside the bay in thirteen fathoms.

At five o'clock A.M., on the 18th, we entered in boats the harbor of Soo-au (or *Saw-o*, as it is called by the natives). We found deep water close in shore with good protection for ships, though a little exposed to the south-east gales. Fine green hills rose on both sides of us, many of them covered with verdure to the tops; and the central village, for which we made, was situated some little way inland on the side of a stream, which in its meanderings flowed between the hills into the sea. The houses of the Chinese inhabitants were built of round stones and mud, thatched with straw. These people told us that the savages dwelt on the hills to the left amongst the thicket, and they took us to see one of them who had recently come down to their village; but unfortunately we were too late, for he had returned.

The Chinese here trade with these savages in various articles, such as cloth and skins, and many of them had on cloth of aboriginal manufacture. In exchange they barter cloth, imported from China in junks. To defend themselves from the savages they keep in pay a kind of sharp-shooting militia who patrol the

hills. These men, many of whom came to see us, were armed with very fine matchlocks, kept in splendid order, and with knives worn in their girdles. One man had a gun-shot wound in his leg, which he received from a savage while on protecting duty. They showed us some deer-skins and skins of the Muntjak (*Cervulus Reevesii*), as also the hide of a *Felis*; all these were for sale; but the people evidently did not attach the same value to the Mexican dollar as we did, if one might judge from the prices which they asked for their several articles.

The only specimens I procured of ornithological interest were a *Pomatorhinus* and a Black Tern.

Leaving the central village, we proceeded across the harbor to a little bay on the left, and finding a village there we ran the boat in to the shore. A great many men and women came down to meet us, and we were delighted to find that they were what the Chinese call *Siek hwan*, or domesticated savages.

Some of the men had loose hair, but not a few of the younger among them had their heads shaved in the Chinese fashion. They were a shade or so darker than the Chinese, with a Malayan cast of countenance. Of the women some were brown, others nearly fair; while many, with European physiognomies, exhibited nothing of the slanting eye. A few wore coats or something thrown over the shoulders; but the majority had no other covering than a wrapper round the loins, secured with a cloth girdle. Their hair hung loose, with a white or red fillet laid just above the forehead. Most of these people smoked pipes, or rolls of tobacco shaped like cigars.

One of the men spoke a little Chinese and we got him to interpret to the others. When we enquired about their origin, they said they only knew that they had come from the hills. They could not even tell us their own ages, having apparently no means of noting them. They would not be called *Chin hwan*, or "raw foreigners;" they were simply *Hwan-ah*, or "foreigners," the same as we were. They seemed to be as much afraid of the true savages, Sang fan, as were the Chinese themselves.

Their language abounds a good deal in the "R" sound, and I will here mention a few of the commonest words which I noted down at the time.

Man,	<i>Lárrat.</i>	Son,	<i>Wán-nah.</i>
Woman,	<i>Turroógan.</i>	Daughter,	<i>Kié-ah.</i>

Boat,	<i>Boorrúar.</i>	Dog,	<i>Wássoo.</i>
Fire,	<i>La mán.</i>	To Fight,	<i>Pah boól.</i>
Water,	<i>Lalóm.</i>	No,	<i>Mai.</i>
To smoke,	<i>Khan Tammacho.</i>	Head,	<i>Oórr'oo.</i>

These people, both in the construction of their houses and in their mode of living, resemble the Chinese much more than they do the blood-thirsty race we had seen a few days previously. A quieter and more inoffensive class of people could hardly be found anywhere. They had never before seen a foreign steamer, and in the afternoon came off in crowds and spent the remainder of the day in going round and round the ship, chanting a most peculiar air.

The Chinese call this village Lamhongo; and a village on the opposite side inhabited by Chinese, which we also visited, they call Pakhongo.

We ascended one of the neighboring hills, and from the summit got a fine extended view. On the right side of the hills stretched a fine cultivated plain, with a river diverging close to its embouchure and trending different directions; behind us was the sea in its placid calmness, its angry surf beating and breaking into white spray against the dark rocks beneath; on the left was the harbor of Soo-au. Large flocks of the Black-capped Tern were grouped on the rocks outside; and a monkey sat squeaking and chattering to himself a few hundred yards down the hill. At the entrance to the bay there is a surf-beaten tunnel, which extends quite through the rocks, opening out on both sides north and south; the one on the latter is larger than the other, and high enough to admit a man standing erect.

While at this place we got hold of a toothless old woman, one of the most senile of the whole group of Chinese around us, and explained to her the object of our mission, enquiring if she had ever heard of any ships being wrecked on that coast. She replied that some years ago a Lewchoan vessel had been broken to pieces there, and that all hands had been murdered by the savages.

On the 19th, at daylight, we steamed away from Soo-au, and rounding the point soon found ourselves off the richly cultivated plain we got so good a view of from the hill-top the preceding day. The ship was anchored off the mouth of the river, and the gig and cutter were ordered to be ready for starting in half an hour. We picked up a fisherman from a Chinese boat, who pointed out the

channel; but he recommended us not to try it, the surf was raging in so heavily over the bar. We hesitated; to enter was to run a great risk in coming out again; to return to the ship was to relinquish our purpose and lose a fine view of the country. The cutter was ordered back, while we hung on our oars watching a small junk crossing the bar. Soon the order was heard, "Give way, boys," and in we flew. Once fairly in, and the boat went quietly along in smooth water, following the course of the river for about eight miles. It took numerous turns and bends through a well-cultivated plain, and seldom sounded less than one fathom water.

The first village we landed at was situated on the left bank, and about four miles from its mouth. It was occupied by the Siek-hwan, or domesticated savages, and named Polo Sinnawan. These people were exceedingly civil and good-natured, far more so than the Chinese, and showed us about their tree-ensconced residences. Their houses are built off the ground on posts and have boarded floors. They are governed by a head-man of their own race in concert with a Chinese, who dwells in the village. The women here appeared to be in far better circumstances than those at Soo-an; their heads were neatly dressed with three or four folds of red ribbon run through the hair, the whole surmounted by a woven garland of green creeping plants. Their ears were bored with several holes, and five or six thin white metal rings, two inches or so in diameter, were thrust through each hole. These rather loaded the ears, but the effect was very far from unbecoming.

About two miles further up we landed at another village inhabited by Chinese. This was the chief village on the river; its name is Ke-ta-kan or Le-teek-kan, and was said to contain one thousand inhabitants. It had one good broad street and a moderate display of provisions, but at very high prices. We were shown the skins of the Deer, Muntjak and Felis. The natives said we must be Dutchmen, for they had heard of no other *red-haired* foreigners. The surrounding country was cultivated with rice and millet. Rice appears to be their chief article of export. Junks carry it to Kelung and return with cargoes of salt. They were desirous to know what goods we had brought, and showed every anxiety to trade. After proceeding some little distance past the village, we returned and with a strong tide soon reached the

surf-beaten bar. We landed on a sand-shoal to get a few bearings; it was peopled by a semi-nude pack of Chinese fishermen, who were amazed to see a watch, and asked if it was not a foreign compass. We had some little difficulty in facing the surf, and more than half filled our boat in coming out.

On the 20th of June we passed Kelung Island and anchored in the harbor of Kelung about ten o'clock, A.M. In the afternoon we went to inspect the Coal-mines. It is a long pull round to the bay where they are situated, in a westerly direction from the harbor.

These mines are worked by Chinese, who live at their entrance in huts built of straw and wood. There are eleven or twelve excavations, their mouths opening out, at different heights, on the side of a hill facing the sea. I went to the end of one, guided by a man bearing a lighted piece of twisted paper. The excavation, which ran in a horizontal direction, varied from about four and half to three feet in height and three to ten or more in breadth. The strata of coal run along on both sides in parallel lines from one to three feet in thickness. The roof above, and the floor underfoot, were composed of sandstone. Water was constantly dropping from the roof, and this mixing with the sand formed a slimy mud. The hole ran in pretty nearly in a straight line for two hundred and forty paces; at the end it took a sudden turn to the right. Small wicks in saucers of oil lighted the way along, and we found five or six men at work in a state of nudity with pick-axes, blunt at one end and sharp at the other.

The coal which they obtained was very small and bituminous, and burns fast but with a great heat and flame. It is very certain that they get the best there is in that locality. They asked twenty cents a pecul for it, and declared that five men, at work in a mine for twenty-four hours, did not procure more than thirty peculs. They bring out the coal as fast as it is dug in oblong baskets, containing a pecul each, placed on boards of the same shape, and so dragged out through the watery mud. We bought ninety-six tons of this coal for the steamer, and it was all put on board in two days.

At eight o'clock on the morning of the 22nd we started on our expedition to the Sulphur mines, some forty miles from Kelung, where Mr. Nye was declared to be actually in thralldom. Our party consisted of five persons, besides two marines and several Chinese coolies. After passing through the town of Kelung, we struck

out in a north-west direction, along a good road, till we got to the first station-shanty, five miles from Kelung, in a village called Tye-hoo-lun. Two and a half miles further on we halted a second time at another station, where the party took an hour and a quarter's rest, while the botanist and myself went about collecting specimens of natural history. It was indeed a pretty country, the level parts were well covered with nodding rice, and the hills all fresh and green. But strange enough, few birds were to be seen; I noted none but the Black Drongo, the Red Bittern, and the *Hoo-hoo* (*Centropus*). We met a man carrying, amongst other things, the hide of a civet, a species I had never seen before, which he called *Peih-ba*. He said he had procured it from the hills.

At ten minutes to three o'clock we reached the village of Masoo, close to the sea, from which we could see Kelung Island quite distinctly. Imagine our chagrin when we found that we had been walking all day to accomplish that which we could easily have done, by boat, in a few hours. We halted for a few minutes under a fine banyan tree opposite the village; then, crossing over a shallow pebbly river of fresh water, we selected a little woody spot, on the hill above the houses, where we rested until the cool of the evening; and starting again at ten minutes after six, and advancing along the beach for some distance, we struck into the country in a south-west direction up a high hill. We journeyed on, and as soon as the sun had sunk, and "fast faded the glimmering landscape from the sight," we heard the *Bamboo Partridge* chuckling from a neighboring hill *Ke-puh-kmai*, while an owl gave utterance to his notes of lamentation. Large bats begun now to fly about, and the moon was our only lamp.

It was not until nearly nine that we reached Kim-paou-le, where we intended to pass the night. In front of the Choo-haw-keong temple we halted and desired to speak with the head-man. We were admitted into the temple and soon after received a visit from the Tsong-le, or Corporal, in charge of the village, who brought in some eggs and congee by way of present to us. He said he had never heard of any wrecks on the coast, or of white men being confined in the Sulphur mines. He had himself never seen white men before, and would be happy to give publicity to the proclamations we handed to him.

His visit over, we stretched our bedding on the floor, and disposed ourselves for a quiet night's rest after the labors of the day. We soon found ourselves "hushed with buzzing night flies," but not "to slumber:" mosquitoes innumerable tormented us all night, forcing on our feverish minds the soliloquy of Bolingbroke, "O sleep, O gentle sleep! nature's soft nurse, how have I frightened thee, that thou no more wilt weigh my eyelids down, and steep my senses in forgetfulness?"

The next morning we rose at five o'clock, and as soon as the coolies had taken some food started again. The day was overcast and we were in good walking trim, so we trudged on through some most lovely mountain scenery interspersed with wood, halting once for breakfast on the side of a hill. Then onwards we moved along a broad well-made road, through valley and glen, till a turn of the hill displayed the smoky steam of the sulphur and the barren chasm from which it was emitted.

The country here was very beautiful; we were traversing a path, along one side of a hill, which led to a large gushing mountain stream of the most deliciously cool water; on looking up the stream, you might behold a lovely glen with trees overhanging the raging water speeding on its course, and a deep valley below; while on the other side hills rose very high, and in one of them was seen the verdureless chasm with its perpetual puffing of grey vapor. Crossing a waterfall we put up at a shanty, and prepared to walk to the Sulphur mines. After tumbling and scrambling along a rough path, we managed to reach the mines. No individual was near them; a small straw hut on the hill showed signs of late habitation, but it was now tenantless.—We subsequently learnt that the mandarins from Foochow had sent soldiers to put a stop to the working of the mines, and that at present they were only occasionally and furtively worked.

The sulphur was produced in a chasm, appearing as if the green hills, covered with coarse grass, had been riven in sunder, thus forming a deep valley of limestone tinted with yellow and red; in some parts of this chasm the hot steam was gushing out in jets, with tremendous noise and force, like the steam from the escape-pipe of a high pressure engine; in other spots small pools of pure sulphur were bubbling, and merely wanted the ladling out and cooling to form the sulphur of commerce. At the bottom of the barren ravine rippled a foul rivulet, carrying off the sul-

phureous oozings from the ground. Standing on the top of a hill, I looked down upon the scene: one sulphur pool was not more than fifteen feet below me, and its stench was intolerable; the earth under foot crumbled and groaned, as if it were going to give way; pieces of limestone, covered with the crystals of sulphur, lay strewn about; while beetles and butterflies, unhappy victims to the noisome exhalations, were scattered wingless and legless over the ground.

Leaving this wild scenery we returned to the halting house, and after a short rest started to return on another route by which the guide said he would lead us. Our course first lay up a very high hill, and then some little distance across a grassy table country; near to its termination, the Tamsuy river diverging into two branches, one to Mangka and the other trending towards Kelung, came in sight off in the distant valley below. We hastened down the declivity, passing hills of moderate height, covered with low herbage and cultivated in patches with sweet potatoes and a plant of the *Creanthasea* species used for a dye.

Here the party halted for a few minutes at a wooden plank bridge that spanned a mountain stream, till the botanist and I, who by our strayings from the line of march had dropped a good way behind, came up. I had here the gratification of procuring a specimen of the Dipper (*Cinclus*), a species I have never seen before, but which will most probably prove to be a Himalayan species. Falling behind once more, we hastened after the party over a fine road, across some pasture downs, and soon found them resting again at a small half-way house, and then in company we resumed our march. It was now a constant succession of descents, and the face of the country began to lose its wild appearance, and to assume a more cultivated one; and, until we arrived at the last descent, pastures with browsing cattle and plantations of fir-trees were seen here and there. The hill, which we descended by a range of rough steps winding down its face, with thick wood on our right and left, was very steep, and brought us down to the plain,—a wide extent of waving fields of paddy and millet, intersected by numerous streams and paths with farms interspersed.

We followed our guide to a large village, called Patsienah, where we arrived at half past nine o'clock in the evening. Outside the walls of the village we halted, and held a consultation as to the probability of our procuring a boat to carry us to the neighborhood

of Kelung. We then moved to the boat-house, and hiring one boat for ourselves and another for our coolies, we removed our traps and ourselves into them. The boats were large and commodious; and far more comfortable was it to pass a night in them than in the musquito-haunted halls of a temple. We had walked over thirty miles in the course of the day, and therefore slept very soundly, notwithstanding the motion of the boat.

About five o'clock, June 24th, we found ourselves at Chuy-t'ng-k'a, or Tide's-foot Village, above which the influence of the tide is not felt. Not feeling very fresh, we hired two smaller boats to carry us up the rapids as far as it was practicable. We were obliged to divide our party, as the boats were so small. The botanist and I managed to get together; and the coolies were made to walk. At first the sailing along the rippleless stream, aided by the sculls and the poling and pushing through the rapids, was very pleasant; but like all the good things of life when continued too long, it at last became burdensome; so we were glad to have a halt at a small village called Chittaw.

There we saw a few of the Plover (*Charadrius pusilla*) running among the stones, and also an occasional Dove feeding near the banks. Drongos were gambolling about, and a pair of Red Bitterns with their fowl-like "cack-cack" flew about impatiently. These all assisted to enliven the monotony of the journey, but "tired nature's sweet restorer" soon lulled me in her arms; and on rousing again I found the hills growing more precipitous and rocky as we neared the deep basin that terminated our trip. There our boats made their final halt among twenty-two others already assembled, for the river above that place is merely a mountain stream. The small village where we halted is called Kang-ah-lai. As our coolies were all ready and waiting, we were soon again on the march. Crossing over the stream on a wooden bridge, we slowly trudged up the hill, refreshed by a cooling shower, until we arrived at Kelung, some two miles distant. About half past three in the afternoon, we got on board our steamer, having travelled more than eighty miles, over an unexplored country, in fifty-five and a half hours.

The next day we paid a visit to Flat Island with a party in search for holystone, and passed by the Fort erected many years ago by the Spanish. The greater part of the island is composed of sand-stone, broken up into squares, with a touch apparently of

oxide of iron; over this the water washes at high-tide. The central part has a coarse vegetation and the sea boundaries are formed of white coral. Several Terns were sitting upon the small rocks that there abound, and a few Plover were running about on the flats. Several Chinese fishermen were catching the lovely blue and red coral-fish with hook and line. As one looked down into the clear water beneath the boat, he might see these brightly colored denizens of the coral darting among its white branches.

Of the fish caught in these waters, one of the most beautiful in color, though most uncouth and inelegant in form, is the Parrot fish or Ying-ko-he. A couple of them were brought alongside, one of which I purchased. It was about two feet long, colored with bright red and blue, and having a great blue nasal knob. We found its flesh very delicious, and the knob when cooked resembled the fine green blubber-fat of the turtle.

As the daylight gradually faded, a single light might be seen suddenly to sparkle from a fishing boat in the harbor, then another and another; and, "ere the eastern orb had sunk to rest," the whole water seemed studded with bright lights, which as the night grew darker and darker flashed about like meteors in all directions. The fishermen start in the dusk of the evening, and by pulling about quickly with a bundle of flaming bamboo rods in the stem of their boats, they endeavor to frighten the fish into their nets.

On the 26th we left Kelung harbor, and anchored in the afternoon off the village Haw-be, at the mouth of the Tamsuy river. A visit was paid to the village, but as the officer in charge was away at Mangka, some proclamations were left with the people and we were soon again under steam.

In the afternoon of the 27th, about a mile off from land, we had a very distinct view of the fine green plain varied with undulating pastures and stripes of clayey soil, and of the distant mountains enveloped in clouds. We started in the gig and attempted to land, but the surf as usual being too great we anchored the boat and invited some of the natives, who were crowding on the beach, to come out to us. They readily did so, and taking one of them into our boat, the following was the result of our investigations.

The name of their village (situated lat. $24^{\circ}19'45''$) was Lampaw,*

* Lampaw is two hundred and fifty *le* from Tamsuy,—the people here, as in China, reckoning about three *le* to one mile; at Kelung, however, they made it equal to half a mile.

and they Chinchew men; the town we could see fifteen *le* further south was called Gaw-c'hay-kang; it was in another district; but their village was in the Teek-cham district, under the control of a Tsien-tsung. He said he had no knowledge of Kok-si-kon; he had heard that a foreign vessel had been wrecked some distance up the coast about seventeen years ago, but he was a little boy then; and at the present time, he added, no savages are to be met with in all this neighborhood.

We gave this man some proclamations, which he tied in a cloth round his head; and, jumping naked into the water, he soon rejoined his comrades.

On the 29th we paid a final visit to the Taiwan mandarins, to inquire whether they had issued our proclamations and what might be the result. The Taoutai told us that he had sent to all places under his jurisdiction, and that no answers had yet been received; that, soon after our departure, a despatch had been received from the Amoy Taoutai, informing him of our intended visit in search for foreign captives; and that a few days previously a two masted vessel had struck on a sand-spit near Kok-si-kon and had sunk, while all hands on board, consisting of eleven black persons and one white man, had reached the shore, having some money with them, and had hired a lorcha which was lying there to take them to Amoy. He did not know, however, whether the lorcha had yet sailed or not. He was not acquainted with the nationality of the vessel, but was quite sure that she was not English, and he supposed that we were only on the look out for our own countrymen. We told these officials that all nations ought to assist shipwrecked men, and that we would be most happy to give them a passage to Amoy. The Chintai, who was one of the party present, informed us that the vessel had a cargo of Opium, some portion of which had been saved, but, said he, with a sly look; it is not proper to speak about that.—Subsequently we learnt that the two masted wreck was a small Hamburg vessel bound to Takow with a cargo of Opium.

After some further desultory conversation, we took our leave, and on reaching our steamer were told that a lorcha, with some black men on board, had passed that afternoon in the direction of Takow. We hastened to that place and from that back again to Kok-si-kon,—and next morning ascertained that the lorcha all safely had taken her departure.

The *Inflexible's* head was now turned towards Amoy; and touching at the Pescadores we anchored in a harbor about three-quarters of mile from the town of Makung. We called on the magistrate who has control there and is subject to the authorities in Formosa. With all due ceremony he received us into his hall, which though a dirty dark room had the steps and painted folding-doors peculiar to a Yamun. It was a much more respectable habitation than we expected to find in so small a place as Makung. He said he had been there for the last five years, but was formerly in Formosa. He told us that the only wreck he had heard of occurred at sea in 1852, when the vessel went down, twenty of the crew escaping in two boats to the Pescadores, whence they were sent to Amoy in a Chinese junk. He could tell us nothing further about it, as he was not in office at the time. The produce of the islands consisting of ground-nuts, rice, millet, &c., he said, was not sufficient for home consumption, and a good deal of food had to be imported from Formosa; and in winter the wind blew so hard, he said, that it ravaged all the fields that were under cultivation. Their inhabitants he estimated at about 180,000.

The poor man's story ended, we then took leave of him. He seemed very nervous and much excited, so as at times while speaking with us to be quite at a loss for words. On our departure he saluted us with guns, and a tune played on the Chinese bagpipes. Embarking now once more, we steamed out of the harbor, and on the 1st of July arrived safely back at Amoy.

In conclusion, I may here state that, from the civilities we received from the Chinese wherever we met them in Formosa, the impression was left on our minds that if any shipwrecked foreigners had fallen into their hands they would have met with every kindness, and been forwarded to some Consular port by the first opportunity; but from what little we saw of the savage aborigines, the opinion was forced upon us that no unfortunate castaway among them would survive many hours. Such is their natural thirst for blood, we were told, that before aspiring to the hand of a lady, the gallant savage must produce the head of some enemy slain by him in combat.

ARTICLE II.

NOTICES OF THE CHARACTER AND WRITINGS OF MEH TSĪ.

BY THE REV. JOSEPH EDKINS, B.A.

Read before the Society January 19th, 1858.

AMONG the early adversaries of Confucius perhaps the most influential was Meh Tsioh or Meh tsī. The notice of his opinions, taken by Mencius, has given him great celebrity and has helped to preserve his work from destruction. In the interval between Confucius and Mencius he had many adherents; and the latter of these two philosophers, fearing that the pure doctrines of the great sage would be doomed to neglect through the influence of Meh tsī, entered the lists against him.

Mencius charged Meh tsī with holding that all men should be equally loved, and that thus he took away the obligation to love our parents more than others. Yet Meh tsī says himself that it is the duty of a son to be filial to his parents and a subject faithful to his prince. In this statement his object was to lay down love as a comprehensive principle, evidently including in it the reciprocal virtues that spring from the relations of father and son, and prince and subject. Mencius then was not quite just in his criticism. In fact his jealousy for the honour of his venerated master had been excited by the attack which Meh tsī has made on the character and doctrines of Confucius. He was also alarmed on observing that the traditional orthodoxy, transmitted by the great sage from the ancient emperors, was departed from on light grounds by many scholars of his time. In endeavouring to weaken the influence of Meh tsī, it is not to be much wondered at, therefore, that he should have somewhat overstated his case.

Meh tsī lived during the life time of Confucius or very soon after. Parts of his writings on ethics, politics, and the military art are still extant, and they are of considerable importance on all these accounts. Though his works are not so much valued for beauty of style as those of Lau tsī and Chwang tsī, he is frequently referred to as a most influential leader in matters of opinion.

Like all the old Chinese philosophers, he had a political aim in his writings. He sought for a system of principles, which should be best suited to produce good order in the state. Those principles must be the best, he argued, which make good fathers and good sons, and which induce rulers and subjects to discharge, in a proper manner, their duties towards each other. He found what he was searching for in *the doctrine of equal and universal love*. Benevolence in act was to accompany love in the feelings. Every one in the community should love each person that he meets, and be generous and self-sacrificing in conferring benefits upon him.

All the confusion that exists in the moral world, according to his system, springs from the want of love among men. From this origin come the disobedience of sons and the unkindness of brothers. Robbery, oppression, rebellion, and all the evils depending on the perverse conduct of men that can afflict the commonwealth, proceed also from this source. If men loved their sons, brothers, and subjects as they do themselves, there would be no unkindness, no oppression. If a man esteemed his neighbour's house and his neighbour's person to be as precious as his own, he would not become a thief. Should men regard the inhabitants of other countries with the affection they bear to their own, there would be no war. Only let men throughout the world love each other, and fighting and strife will cease; the father will love his son and the son be filial towards his father; oppression and rebellion will disappear, and perfect order be restored among the human race. Why then does not every sage, whose business it is to explain how the world ought to be governed, adopt this principle and exhort men to mutual love?*

The coincidence here with the doctrine of love in the New Testament is surely not a little remarkable, especially as found in the extant works of an author who lived in China four or five centuries before the Christian era. Strange it is that such a doctrine should have been proposed in China so long ago and rejected.

There are, however, some important differences in the form given to this doctrine by Meh tsī. He bases it upon *political utility*, while our Saviour rests the obligation to love on religious and moral grounds. The Christian is to love in obedience to the will, and in imitation of the example, of God. Meh tsī, moreover,

* See works of Meh tsī, Section 14, "On equal and universal love."

does not say, "love your enemies." His view is too utilitarian for this; the highest point reached by him is, if you love me as I love you, we shall both be the better for so doing. The apostle John describes love as a spontaneous activity, flowing from a heart touched with gratitude. "We love him, because he first loved us." I am to love my brother man, because Christ died for him as for me. Our Chinese philosopher knew nothing of such an origin for his favorite principle, deep among the foundations of our moral and emotional nature. His views, while resembling Christianity in form, are much more akin in reality to the opinions of Bentham and Paley, who, had he lived in their day, would doubtless have claimed him as an ally.

Continuing his argument for equal and universal love, Meh tsi refers to the example of the ancient Chinese kings, who introduced the improvements of civilization and the blessings of good government among all their subjects with strict impartiality. The three noted kings, Yü, Wen wang, and Wu wang, whose actions fill so large a space in the Book of History, only carried out his principle.

In advocating universal love, this philosopher lays great stress on the circumstance that it should be *equal* towards all. He observes that when men begin to distinguish between one man and another, hatred and injustice make their appearance. The right principle is, he contends, to love others as we do ourselves, and to love all equally. We are not to make a distinction in love between another kingdom and our own. He would have men feel as much desire that their neighbor should not be robbed of his property as that they themselves may not suffer in that manner.

The doctrine is here made to assume a paradoxical form, and a good opportunity is thus given to any antagonist to stigmatize it as dangerous, on the ground that it is incompatible with such virtues as patriotism, the love of kindred, and especially with filial piety, the crowning duty in Chinese morality. Mencius saw his advantage, and made such good use of it that the propounder of this principle of love, in this pagan empire, has ever since been regarded as a *heretic*, who aimed at the subversion of morality!

Our author, foreseeing the opposition that his sentiments would excite, defended them by observing that he was merely reducing to a definite form the principle on which wise kings, generous

friends, and persons performing any charitable action constantly proceed. They bestow material comforts, he argued, on those who are in need of them. When people were suffering from pestilence or drought, the good kings had said, "Let the sins of our subjects be visited on us." If a man's friend be in want of food and clothing, it is his manifest duty to supply him. The want of equality in our love to our fellow-man gives rise to many evils; but if this principle be once recognized and acted upon, there will never again be reason to complain. All men will discharge their duties in a proper manner, and the whole world will be at peace.

The works of Meh tsî formerly contained two sections upon the errors of the Confucian system. The second of these is still extant. Some of the faults that he animadverts upon are the following.

Funeral and marriage observances were too minutely regulated. What was the use of a close attention to external show in mourning, if the heart did not feel grieved? Minute as the arrangements were, they were inconsistent with each other; for mourning lasted three years both at the decease of parents and of one's wife or heir. Now a man's parents being nearer to him than his wife or heir, in point of kindred relationship, mourning should last longer for the parents than for the others according to the principle of consanguinity, which the literati of his time professed to follow.

He also condemns the doctrine of fate which pervades both the ancient Chinese books and the Confucian system, on the ground that it leads men to neglect their duties. If men are continually saying that riches and poverty, life and death, &c., all depend on the will of Heaven, they will soon cease to be diligent and industrious, believing that all personal exertion is useless.

He also objects to that excessive reverence for antiquity, which distinguished the school of Confucius. The ancients, he remarks, were all moderns in their turn, and they should not therefore be looked to as patterns, merely because they preceded us in the order of time. The good Confucian will not give his opinion to his prince on matters of state, unless he is asked: he is fond of saying, "A bell does not ring unless it is struck." Our author inquires, "What, in this case, becomes of filial piety and the fidelity of a subject to his king?" He then adds, that wherever a man can confer a benefit on his superiors he ought to do so without waiting till an appeal is made to him. That I am able to benefit another is a sufficient reason for undertaking to do so.

Meh tsĭ follows up his attack on the literati by some grave moral accusations against the ancient sage himself. For example, he charges Confucius with recommending a traitorous subject to the ruling head of a neighbouring kingdom. After a short time that subject revolted and put his unsuspecting prince to death. Critics friendly to Confucius have attempted to vindicate his memory from this slur, by showing that he died some time before the event referred to took place.

The fortune of Meh tsĭ has usually been to receive unlimited condemnation for his audacity in assaulting the cherished principles and unspotted name of the great sage, his contemporary. The judgment of Mencius has been usually adopted with great unanimity, and his victim has been unrelentingly doomed to the limbo of heretics.

Granted that he was probably unjust and malicious in his personal attack on Confucius; yet why, it may be asked, should he be subjected to so many hard blows on account of his doctrine of love, so accordant with the feelings of a right minded man? Late authors have remarked that the real cause of the ire of Mencius was his onslaught on the opinions of the literati and the character of their great chief, but that he preferred to take vengeance on the favorite doctrine of the offender as a more dignified mode of attack and more likely to effect his overthrow.

At a much later date, in the T'ang dynasty, the celebrated Han Wen-kung attempted to roll off the opprobrium with which the name of Meh tsĭ had been covered. He insisted that his principles are in fact the same with those of Confucius, and that it was the work of scholars who lived after their time to set these two great philosophers in opposition to each other. For daring to think so favourable of Meh tsĭ, Han Wen-kung has been, as was to be expected, severely censured by the zealous Confucianists of the Sung dynasty. Their minds were formed in too narrow a mould to allow of their tolerating a system which disagreed with the orthodox traditions.

ARTICLE III.

CHINESE BIBLIOGRAPHY.

BY D. J. MACGOWAN, M.D., NINGPO.

Letter to the Secretary, read before the Society March 16th, 1858.

DEAR SIR: I beg to express my thanks for the honor that the Literary and Scientific Society of Shanghai has conferred upon me in placing my name on its list of Corresponding Members. It shall be my aim to discharge the duties which that relation imposes; and I avail myself of this occasion to beg your acceptance of the accompanying works, viz: The 玉山縣志, *Yuh-shan Hien Chî*, Miscellany of the Yuhshan District in Kiangsî; and the 天一閣碑目, *Tien yih Koh Pei muh*, being a Catalogue of the Library of the Fan family in the city of Ningpo.

I perceive that you contemplate the formation of a Library and Museum. Perhaps I cannot now better serve the Society than by calling attention to the vast importance of a good collection of Chinese books. In no way can foreign residents in China do more to command the respect of those who mould the public opinion of this empire, a large body of educated men, than by founding a Chinese Library.

Permit me to commend, as worthy of special regard, that class of works styled 志, *Chî*, of which I send a specimen. These works have hitherto attracted little attention, yet are they of infinite value to almost every class of inquirers. They have been designated Topographies by some, Statistical works by others; the term Miscellany, perhaps, best expresses their comprehensive character. They may be consulted for facts relating to Topography, History, Archæology, Biography, Statistics, Natural History, Religion, Literature, Manners and Customs, and, in fine, on questions bearing in any manner on the localities which they describe. Ancient as well as modern editions should be sought for. Let efforts be made to secure a complete collection of these works—those of every province, department, and district, as well

as those of more limited places—of lakes, mountains, temples, &c. With the assistance of students in Chinese, you may soon obtain a better collection of the *Chí*, or Miscellanies, than is to be found in this empire; for an examination of the catalogues of the libraries known to exist in this country, shows a great paucity of such works.

The Miscellany of this province, Chéh-kiang, would itself make a library of seven hundred volumes. The *Chí* of the whole empire cannot number much less than ten thousand volumes, of the pamphlet form into which Chinese books are divided. Miscellanies of departments are of more value than those of provinces, as those of districts are more valuable than the departmental ones, and for the same reason, namely, their greater fullness and circumstantiality.

Again, native libraries seldom contain works on Medicine, Natural History, the Arts and the like; so that these several important departments of bibliography must also demand your attention.

A reference to the Miscellany of any place of note will show to some considerable extent, what contributions its scholars have made to the literature of their country; and if at the same time inquiries be made after their productions, it will be seen that wonderfully large proportions are irrecoverably lost. In no land are books suffered to die as willingly as in China. Take, for example, the Hangchau Miscellany. The list of books by authors of that city, beginning with the latter half of the fifth century and extending to the latter half of the eighteenth, shows two thousand four hundred and twenty-nine works: of these, the principal bookseller of Ningpo, who has agencies in various cities, says that only about eight hundred are procurable, and of those extant the number is not much greater. Lest that list, the Hangchau Miscellany, should be taken as the measure of the literary activity of that provincial capital, I must here remark that a *Fu Chí*, or Departmental Miscellany, often omits works which are inserted in the *Hien Chí*, or District Miscellany, while this last only gives those the names of which survived when the Miscellany was compiled.

The coterminous department of Kiahing gives 570, and the ancient department of Shauhing, on its south, gives 1991. The mortality in those two departments exceeds that of the provincial capital Hangchau.

A further evidence of the mortality of books in China, is afforded by the unavailing efforts that have been made, at the instigation of Prof. Julien, to discover works that have been written on the countries north and west of China, between the 9th and 18th centuries.—Vid. Chinese Repository, vol. XVII. p. 575.

These losses have been the greater owing to the want of libraries. A Public Library, as we understand the term, can hardly be said to exist in China; and private libraries are guarded with so much jealousy that they are of little use, even to their possessors; while the few collections that belong to government are so difficult of access as to be of no value. Of the collections which exist, there are but a few that can be called ancient. The impoverishment of families, civil wars and dynastic revolutions, have been very fatal to libraries in this country.

One of the most celebrated private libraries in the empire is that of the Fan family, whose catalogue is herewith transmitted, as specified above; it is often referred to in the 四庫館提要書目, *Sze Ku kwan Ti yau Shú muh*, of the Emperor Kienlung. The dwelling of that family is in the southern part of this city. The Gallery, or Library, is in the midst of their garden, which is beautifully diversified by grove and grotto, miniature mountain, glen and lake, such as Chinamen of wealth and taste delight in. The library was commenced by the Yung family, among whom were numbers of scholars and statesmen. On their decay the rising Fans purchased it; one of whom, a provincial treasurer, was given to bibliolatr. Thus it happened that when Kienlung, in 1774, undertook to enlarge the imperial library, the Fans were able to render him signal assistance. The particulars of this remarkable undertaking are recorded in a succession of documents forming part of the Preface of the Catalogue.

That enlightened monarch issued a proclamation requesting copies of all books not already existing in the Imperial Library, catalogues of which were extensively distributed. The books were to be sent to the provincial governors. Such works as were sent on loan were to be returned to the owners. Rewards were to be bestowed on persons who distinguished themselves by sending large numbers of rare books. So little success attended the attempt, that in the following year another proclamation was issued, calling the attention of booksellers to the subject, and

directing them to search for and purchase suitable books for the imperial library.

Four families of note distinguished themselves in this enterprize, three of whom belonged to this province, the foremost being the Fans of Ningpo, who sent up 696 works not possessed by the literary monarch. To each of these the emperor presented a copy of the 古今圖書集成 *K'ü kin Tu Shü Tsih ching*, Complete Collection of Ancient and Modern Books. Persons who presented or sent up a hundred, and upwards, were rewarded by gifts of the *Pei-nan Yuen-fü*, or Great Thesaurus. Five officers were thus rewarded, two of whom belonged to Suchau in Kiang-su, the others to Chehkiang.

The Catalogue of the Fan library contains the names of 4,094 works, comprising 53,799 kiuen. The inutility of this library may be inferred from the jealousy with which it is guarded. Each member of the clan keeps a key to his own lock, so that the place can be opened only by consent of all, and the rule is that it shall be opened only in presence of all. This is a rule that obtains in large private libraries generally. The rooms are opened but once a year, at the close of the damp season, when those who have any regard for books expose them to the sun. One of the duties of the provincial chancellor, when he visits Ningpo to examine the district candidates, is to inspect this library. The family was induced to open the building by Sir J. Bowring, a few years ago. On that occasion they displayed with much pride some engravings about which there are various exaggerated rumors. Those prized sheets are said to be masterpieces of Chinese art, equalling any thing which foreigners exhibit. The praise was not wholly unmerited; but a scarcely perceptible inscription, in one corner, showed the sheets to be a gift from Louis XVI. to Kienlung, for whom they were engraved to illustrate the campaign against the Kalmucks in 1756.

There is another library, smaller and also private, in this city, that of the Loo family. It is guarded with the same jealousy, but at the same time is greatly neglected, and is said to possess a copy of the Complete Collection of Ancient and Modern Books, purchased at Peking.

On two visits which I paid to the provincial capital, Hang-chau, I took a look at the *Wan-lau Koh*, or Library in the Palace

of Kienlung. It contains all the works named in the accompanying catalogue and many more besides. That library was designed for use and for the public. Indeed it is accessible to those who apply for the privilege to the local authorities. Facilities are afforded by which the student may procure lodging and food at the establishment, but from some cause or other the library is rarely or never consulted.

Having named the *K'ü kin Tu Shü Tsih ching*, Complete Collection of Ancient and Modern Books, it may be proper to call attention to it, as it may be new to some whom I address. It is a library in itself. It was projected by one of the most enlightened rulers of his age. Completed just at the close of Kanghi's reign, it was not presented for imperial approbation until Yungching ascended the throne. The undertaking is without a parallel in the history of literature. It was printed with a font of moveable copper types prepared on purpose. The ten thousand *kiuen* of which it is composed, are usually bound into 5,000 volumes, exclusive of one hundred and eight volumes of indices. The whole Complete Collection is about equal to eight hundred New Testaments.

This Great Collection is divided into six general Departments or *Pien*, comprising works on Astronomy, Geography, Society, Science, Classical Literature and Government. The Scientific department probably contains a larger proportion of otherwise inaccessible information than any of the other grand divisions. It is subdivided into works on the Arts, 824 *kiuen*; Animated nature, 192 *kiuen*; and Botany, 320 *kiuen*; works on the Arts of Music, 136 *kiuen*; and War, 300 *kiuen*. The subdivisions of the Geographical department, including as it does works on foreign countries known to the Chinese, must be of great value.

The *Bibliothèque Impériale* at Paris is so fortunate as to possess some important portions of this magnificent work, respecting which Julien has said, that for "elegance of form and beauty of impression, it rivals the finest works published in Europe." It is also a rare work, as the entire font consisting of two hundred and thirty thousand types was melted after only about thirty impressions werestruck off. A portion, consisting of eight-tenths of the whole, was lately brought to this city from Hwuichau by an impoverished family and sold for about four thousand dollars to an officer from Kweichau.

It is impossible perhaps to obtain a complete set at any price. That however need not be deplored, as with some exceptions the Collection is continued in the 聚珍板 *Chū Tsun Pan*, Pearl Type Collection, also printed at the imperial office, but with earthen or wooden types, while the wanting portion and more is contained in the 文苑英華 *Wan yuen Ying hwa*, 冊府元龜 *Tsah foo Yuen kwei*, and the 太平御覽 *Tai ping Yü lan*, the whole of which can be purchased for a few hundred dollars.

With our mercantile fellow-countrymen for patrons you may soon be able to lay broad the foundations of your Library by procuring this valuable Collection of ancient and modern authors and a set of the above named Topographical Miscellanies, forming in themselves a library of no small worth. As in our native lands we are accustomed to see munificent donations and bequests made to Institutions of Learning, so we may expect, when the claims of your Library and Museum are fairly exhibited, to see the liberal affluent availing themselves on quitting China of this channel to leave marks of their denizenship, which shall contribute to the enlightenment of this land and to the honor of that to which they belong, aiding at the same time in the diffusion of knowledge among mankind generally.

By such a Library and a Museum, exhibiting the natural productions of this empire, you may expect to see men from the mountains of Yunnan and the deserts of Kansuh repairing to you for information on the land of their birth, rendering Shanghai as much an object of interest to the native scholar as it already is to the merchant.

Your corresponding members, enjoying as they do the honors and some of the privileges of your Society without cost, will I hope consider it a privilege to promote the undertaking to which I have ventured to call attention.

Yours respectfully,

D. J. MACGOWAN.

To the Rev. J. EDKINS,
*Secretary of the Shanghai
 Literary and Scientific Society.*

ARTICLE IV.

ON THE MUSICAL NOTATION OF THE CHINESE.

BY THE REV. E. W. STILE, A.M.

Read before the Society, February 16th, 1858.

IN the following remarks we have purposely restricted ourselves to the one topic of the Musical Notation found in common use among the Chinese, without going into the more general subject of the characteristics of their Music. Indeed we do not profess to give anything more, or other than that which is commonly met with in the region immediately surrounding us; but leave to other and abler hands the task of gathering up and generalizing the facts which individual observers, like ourselves, may put on record for general information. It is not our purpose even to give an outline of the contributions on this subject which have been made by recent writers, such as Mr. Lay, Sir John Davis, and Dr. Williams; but simply to give an account of what we have met with ourselves individually.

We do not feel at liberty, however, to refrain from quoting a passage which contains so much misinformation, that one finds it difficult to account for its occurrence in a work so remarkably accurate and reliable on almost all points as is that admirable compilation which goes under the name of "Du Halde." Yet, in the 3rd vol. of that work, under the heading "Of the Skill of the Chinese in the Sciences," we find it stated—

"They have *no musical notes*, nor any sign to denote the diversity of tones, the raising or falling of the voice, and the rest of the variations that constitute harmony: the airs which they sing or play upon their instruments are got *only by rote* and are *learnt only by ear*;" &c., &c., p. 68.

We must repeat that it is difficult to account for the occurrence of such a statement in such a work, considering the remarkable advantages possessed by the Jesuit Missionaries for becoming acquainted with all that concerned the Science and Literature of China. But so it stands.

A. Lōk Pāu.

上	六	六	尺	工	四	工	} 六板
上	尺	工	工	五	尺	四	
四	工	尺	六	六	上	尺	
合	上	尺	六	尺	合	上	
	工	工	五	工	四	合	
	四	六	上	尺	上	上	
	尺	六	五	上	四	四	
	上	五	上	上	上	上	
	合	工	五	上	四	上	
	四	尺	六	尺	合	工	
	上					尺	
		尺	六	工	六		
	四	六	五	尺	六	工	

B In my Cottage.

上、合、四、乙、合、
 上、合、尺、四、合、我
 尺、乙、尺、四、尺、舍
 乙、尺、上、合、尺、間
 乙、尺、上、尺、工、
 上、工、尺、尺、工、
 四、尺、乙、尺、尺、
 合、六、四、上、
 四、工、乙、上、
 乙、尺、上、乙、
 合、四、四、乙、

C. Swih Voong Yang.

五六五少五六五聚五五上聚五尺五五六
說鳳陽話鳳陽。鳳陽原是個好地方。自從出了
聚五尺五聚五聚五尺五五六五
朱皇帝。十年倒有九年荒。十年水大十年旱。十
聚五聚五尺五五五六五
年蝗虫降災殃。大戶人家賣田地。小戶人家賣
五尺上尺五六五上尺五聚五聚五尺
兒郎。我家沒有兒郎賣。搬了花鼓上街方。

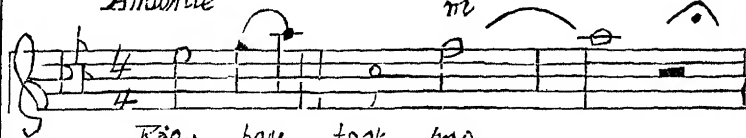
D. Siau Chōk.

小曲

肩背着花鼓手提着鑼夫妻恩愛
 寸步不離途杏臉容顏俏平生為
 唱歌穿街過巷兩腳走如梭

The Siau Chōk. in our Notation.

Andante



Kie bay tsak mo.....

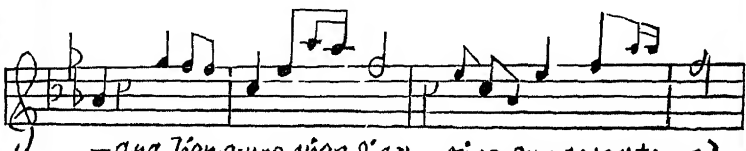
Vivace



koo.....sur de tsak..... Zoofoo we



.....ung oly.....tsun boo peh re doo



-ana hien yung yien sian..Pina sung woy tsong koo



tsay hia.....koo... oug....Vian mo



tsur.. Zoo .. Soo

For ourselves, we can only say that we had not been in this place many months before we became aware, through the second Chinese teacher we employed, of the existence of a very respectable system of writing music—one which compares quite well with that used by the Greeks.

Using a small melodeon, it was no difficult task to ascertain what notes upon the instrument corresponded (or nearly so) to the notes of the common Chinese flute; which being done, the next thing to be observed was how the different sounds which my teacher played were represented on the paper that lay before him. This also could be seen without much difficulty; and a little patient "comparing of notes" brought out this result:—That they employ nine different characters, or syllables; which is exactly the number that can be written on our common five-line stave, without the use of leger lines either above or below. Those characters are 合, 四, 一, 上, 𠂇, 尺, 工, 凡, 六^五, which are pronounced *hó sz' yíh záng tsei'koong'van lieu oo*; and in writing out a tune they follow the usual order of their other writing; so that their method is as though we should add two more syllables to our *do, re, mi, fa, sol, la, ci*, and then use these words to express the successive intervals of a melody, instead of circles and dots written on the different lines or in the spaces of what we call a staff. When it is required to write in alto, the same characters are used with the addition of a little flirt of the pencil added; thus, 乙, 上, 尺, 工, 凡, or else the character for man 人; thus, 亿, 仕, 伋, 仨, 仵,

After these explanations the following tune, which is the common hack of all learners, will be understood without much difficulty.

(See A: the "*Loh Pan*.")

When performed on a Chinese instrument it would be observable that some of the notes differ slightly from those which our instruments produce; but as the explanation of the difference would require a discussion of the Chinese musical scale, as compared with ours, we do not enter upon it at this time.

We must, however, take notice of the way in which the time is marked, for that comes strictly under the head of notation. It will be perceived that the only things which mark the time here, are the occasional spaces left to indicate rests, and the dots which

show where the beats should come. And here we touch the weak point of the system: for the notation of time is unquestionably faulty, and requires that much should be learned by traditional teaching from the master; and even then it leaves not a little to be decided by the individual taste of the performer. More on this point, however, subsequently.

This *Lok Pan*, which has just been explained, seems to occupy here the unenviable, forlorn-hope, position which used to be given in our instruction books, some twenty years ago, to "*Sul Margine d'un Rio*," or the "*Leiber Augustine*," or "*In my Cottage near a Wood*."

At the risk of reviving painful memories to the mind of some whose place of study or business may have been near the room of some "young gentlemen learning to play the flute," I will endeavor to make this Chinese notation less unfamiliar, by translating into it this last named tune.

(See B: "*In my Cottage*," Sinicized.)


We must now proceed a step further and notice how, in writing out songs, the words and music are combined together; and in this we shall be obliged to add one more instance to the list of contrarieties which are found to exist between our own and the Chinese method of doing things. Our song music, whilst it is generally *composed* in accommodation to the words to which is married, is nevertheless written out and *printed* as if it were altogether the "better-half," and the words are made to accommodate themselves to the music—being either spread out or crowded together as the music may require.

Not so among the Chinese. With them, the words are written down in a severe and stately column, and the music is left to find room for itself in the best way it can. All the vocalization that is to be done upon any particular word is made as it were to flow off from it, sideways and downward;—the performer must look sharp after his notes and rests and beats among the odds and ends of writing that appear to the uninstructed like the after-thoughts of hasty composition. Of this we will give first a simple and then a more elaborate specimen.

(See C: *Svih Voong Yang*.)

In this the most noteworthy feature is that little, unwritten *twitch*, or *ad libitum* deflection, sometimes upward, sometimes downward, which constitutes one of the peculiarities of what we

may call the Chinese style; but this is one of the tricks of performance, for which there is no notation.

In what follows, however, there are other features which deserve notice—*e. g.* the manner of indicating a rest, which is by a little angle—thus ; though the duration of the rest is left to be learned traditionally, or inferred by the pupil himself. He is kept within bounds, when making such inferences or conjectures by the proximity of the neighbouring beats; and as to the beats themselves, when we find that every fourth one is marked by a *circle*, instead of a mere dot, it is to be understood that the beating of the time is performed thus: 1st, the whole hand strikes the table—2d, the fore-finger only—3d, the middle finger—and 4th, the ring finger; the circle marks the beat of the middle finger—thus (with consistent contrariety) giving that prominence to the *third* beat which we give to the *first* of each bar.

(See D: *Siau Chok.*)

I must add that Chinese musicians are generally found to be excellent timists; and that they seem to delight in abrupt rests and in the frequent occurrence of syncopation.

As to their instruments, they have been so accurately described and commented on by Mr. Lay, in the 8th chapter of his admirable little book “The Chinese as they are,” that nothing more need be added to what is there said, until a fuller acquaintance with different parts of the country shall have brought us acquainted with more than meets the eye in the regions to which we now have access.

We append finally (See E:) a draught of the Chinese and European scales combined, by the use of which it will be in the power of any one who has patience enough, to reduce a Chinese written tune to our notation, at least so far as the *pitch* of the notes is concerned: the *time* it will be more difficult to puzzle out, and as to the *style*, it must be heard to be appreciated or imitated.

ARTICLE V.

LECTURE ON JAPAN.

By S. W. WILLIAMS, LL.D., U. S. A. SEC. OF LEGATION, &C., &C.

Delivered Tuesday evening, October 26th 1858.

LADIES AND GENTLEMEN: The subject of my remarks this evening is Japan; and if the numbers and respectability of my audience form any index of your interest in that country, I infer that the recent events which have taken place in it, and the treaties its rulers have formed with the ministers who have come to their court, have had their effect in arousing and deepening your desire to learn more of this hitherto secluded land. Mystery always invests a subject with charms, and wonders increase around it in proportion to the glimpses we get of it, thus stimulating the imagination to supply the deficiencies of our knowledge. Sometimes, however, these fancies come to be accepted for facts; and then, when the truth is known, our disappointment is proportioned to our expectations. Such in some degree has been the case in respect to the Japanese, and their empire has been regarded as the scene of many things, excellent or dreadful, which further research will show never existed. Still there is much to repay a candid examination, and it will disclose many new features in the history of the human mind, especially in that great problem of self-government, and the maintenance of order, such as secures the life and property of every individual.

The time afforded by a single lecture will only allow of such a cursory survey of the Japanese and their country as will tend to show their national character, and enable us to define somewhat their position in the human family. And I beg of you not to regard them merely as objects of curiosity with which you have not much sympathy, but rather as a numerous people whom you yourselves may influence for good.

It will enable us to form a better idea of the Japanese empire, if we compare it with some other countries of the world. Its position, as you are all aware, is in that line of islands which

outlies this great continent on its eastern shore, stretching from Kamstchatka along through the island of Karafto, Yeso, Nippon, Kiusiu, Formosa, Luzon, and thence down to New Holland. The Japanese empire includes all between Formosa and Karafto; and by a recent arrangement, either with the Chinese or Russians, its border passes so as to include the southern third of this last-named island. There are four large islands in the kingdom, viz. Nippon, Kiusiu, Sikok and Yeso, and, as the Japanese reckon, over three thousand small ones and islets. The three first named are inhabited entirely by the Japanese, but the Ainos still occupy a large part of Yeso.

When Columbus reached Hayti he observed in his journal that he had at last reached Zipangu, of which Marco Polo wrote, and which country, we know, was the great object of his search; the remark did not more clearly prove his ignorance of what sort of a people the Japanese were than his misapprehension as to where they lived.

The word *Japan*, as it comes to us, is of Chinese origin, and in its meaning is identical with *Nippon*, the native name of the largest island in the group; the word means "Sun's Origin," or the Dayspring; the people themselves, however, do not recognize the word "Japan." The other two islands *Kiusiu*, i. e. the Nine Departments, and *Sikok*, or the Four Kingdoms, lie south of it.

The area of all that the Japanese claim is estimated by Siebold at 158,235 square miles, of which the three principal islands measure 115,801 sq. m. If we compare the first sum with the provinces of China, it is a little smaller than the province of Sz'chuen, and about the same as the three provinces of Kiángsú, Ngánhwui and Kiángsi, under the jurisdiction of the governor-general of Liáng Kiáng. It is rather smaller too than Spain, and about half the size of Texas. The smaller area is nearly the same as that of the United Kingdom, and the two groups of islands, on account of their size and position on opposite sides of the same great continent, have often been compared. Yet how different has been their influence and power in the world's history!

The islands forming the Lewchewan archipelago, reaching from Van Dieman's Straits nearly to Formosa, are under the control of the prince of Satsuma, who does not allow any interference in his control by the emperor at Yedo.

The ports which have recently been, or are to be, opened to foreign residence and commerce, are Yedo, Simoda, Ohosaka, Nagasaki, and Hakodadi.

Yedo (it should not be written Jeddo) lies at the south-eastern part of Nippon, nearly on the latitude of Naples, at the head of a fine large bay. The name means River's door; and by those who have means of knowing, the city is reckoned to contain two and a half millions of inhabitants; Peking is estimated, on good authority too, to be equally as large and as populous; this will place Yedo, Peking and London, in point of population, far in advance of all other cities in the world. Yedo is the centre of everything which is desirable in the eyes of a Japanese, far more than Peking is to a Chinese, or perhaps even than Paris is to a Frenchman, or Berlin to a Prussian; luxury, arts, power, and amusements all are found there in their highest degree.

Simoda (i. e. the Lower Field) is a town of about 7000 inhabitants, lying near the entrance to the bay of Yedo.

Ohosaka (i. e. Great Board) is situated nearly half-way between Simoda and Nagasaki; it is one of the largest cities in the empire, and the entrepôt of Miyako, but has not yet been visited by any foreign ships.

Nagasaki lies nearly at the southwestern extremity of the country, in Kiusiu, and has long been associated in our minds with Japan, as Canton used to be with China,—a place where a few merchants were willing to submit to almost any indignity and privation for the sake of gain. It lies nearly on the same latitude as Nanking, Malta, and Norfolk; is beautifully situated at the extremity of a safe harbor; and contains over 60,000 inhabitants. The name means Long Cape, given to it from the point of land stretching south of it.

Hakodadi is in the island of Yeso, and has been the resort of many whalers since it was opened to them in 1855. Its name means Box Ship, perhaps from its position as the entrepôt of most of the trade of that island.

The surface of Japan is rough, and no contrast in scenery can be greater than is presented when one leaves the flat region of Shanghai and crosses over to the bold headlands of Nagasaki. It is probable that this town may by and by become a sanitarium for the residents here in Shanghai.

The most striking object in the whole country is the ancient

volcano of Fusi, which rises in a regular cone to the height of nearly 17,000 feet, or about the same as Ararat, and is visible from the city and bay of Yedo. Its top is bare in summer, and no eruption has occurred for ages. This magnificent mountain forms a favorite subject for embellishing the wares of the Japanese, and identifies articles with that country.

Another volcano, about 3,500 feet high, still in action, and well known in the annals of the nation as the scene of the sufferings of the Christians, is Unzen-daki, visible from Nagasaki. An eruption of this volcano in 1792 desolated the country at its foot, and destroyed over 53,000 inhabitants.

Nor should the beautiful cone of Kaimon-daki, at the entrance of the bay of Kagosima, southeast of Nagasaki, be overlooked, for when once seen it is always remembered.

Japan is without doubt densely peopled; but the total number has been so variously estimated, from 15 to 40 millions, that we shall perhaps get a better idea of its amount by comparing the surface and extent with those of some other countries whose census is known. The province of Sz'chuen in China, for example, contains twenty millions, and like Japan is fertile and mountainous; while the aggregate of the inhabitants of the Liáng Kiáng, a rich alluvial region, is reckoned to be over ninety millions. The last census of the United Kingdom gives twenty-seven millions, and you all know its soil and resources. The first comparison of areas with Sz'chuen and Kiángnán includes Yeso, whose inhabitants can hardly average twenty to a square mile; but the latter, with Great Britain and Ireland, is much more analogous to the thickly settled islands of Nippon and Kiusiu. In Japan, I think I am safe in saying, there could not be found an acre of land cultivated merely for feeding animals, and the country is more rough than England; on the other hand, there is in Japan little arable land occupied by parks; and the number of cultivable acres is probably less than in the United Kingdom.

Siebold reckons the population of Japan at 35 millions; but judging from the comparisons just now made, I am not inclined to put it higher than 18 or 20 millions. The enumeration of the people is carefully made in each principality, but no one has the power to demand the several censuses and combine them into one satisfactory table. The northern part of Nippon in the principalities of Dewa and Mutsu is rough and sterile, and cannot support

half the number of people that the fertile valleys of Kinsiu easily maintain. By the help of these facts and comparisons we can form a reasonable conclusion respecting the total census.

The greatest part of the inhabitants of Japan are agriculturalists, and a genial, healthy climate encourages them in their tillage by developing the fertility of the soil. The extent to which terracing is carried is almost unequaled in other parts of the world; and no one who visits the neighborhood of Simoda or Nagasaki can restrain his admiration at the natural beauty of scenery, ornamented and improved by the careful culture of the farmer, or cease to wonder at the labor which he has expended in terracing the hill-sides.

The rate of wages of the day laborer in the workshop or on the farm is about the same as in China,—twelve cents or a sixpence per day,—and his condition in the two countries does not materially differ. As an index of their greater security, it may be remarked that their farmsteads and hamlets are scattered over the country, not always clustered in large villages.

The people themselves who occupy this group of islands present the most interesting subject of inquiry. Their character is marked. Xavier, whose opportunities of observation were extensive, early called them the Spaniards of the east; and like them, they are proud, and rather irascible; vindictive when offended, and spirited in repelling insults. They are licentious and gross in their morals; polite and even obsequious in their manners; and have an inquisitive turn of mind. If compared with the Chinese, they are not so democratic in their institutions, so industrious, or so mild, nor have they on the whole as much physical strength; but they exhibit some traits which encourage us to expect a more rapid advance in the essential elements of national prosperity and strength. They belong, like them, to the great Mongolian family of the human race; but the probabilities are that at an early period in history their ancestors found their way from the north to their present location, branching off from the Tungusian and Kamtschatdale races, and not directly from the Chinese. Their average height is about five feet four inches; their heads are large; their eyelids exhibit the peculiar obliquity that is noticed among the Mongolians, and like them, too, they have coarse black hair, and small hands and feet.

The Lewchewans, now under their oversight if not their direct rule, are less in stature, and slighter in form. Their origin is

perhaps different, their ancestors having probably come northerly from Luzon through Formosa, for the Malayan features are distinctly traceable, though all intercourse with even Formosa has ceased for many ages.—On these points further research is needed, and a comparison of languages, &c., before a decisive opinion can well be formed.

The government of such a people as the Japanese presents a very interesting topic of inquiry to us, owing in a great measure to their isolation, and the persuasion that every feature is of native growth, modified slightly if at all by the institutions of other countries. Like that of the early Chinese dynasties, it took the form of a feudal monarchy, there being an emperor, supposed to be of divine origin, and sixty-six princes, each acknowledging him as their sovereign, but retaining the power over their own domains. Of these sixty-six principalities, five were the peculiar possession of the emperor, and the remainder were grouped into seven *do*, or circuits; but no general authority over the *do* seems ever to have existed. In process of time, and in consequence of the decay of imperial power and course of revolutions, the pure feudal form of government became modified, and the authority centralized at Yedo in the person of a lieutenant-general or lord high constable. From him it has since gradually passed into the hands of a council. The government might be called now a *federal monarchy*, or *federal oligarchy*, according as we ascribe the real power to the Siogoun or to the council, though it still retains so many of its characteristics, that it is undoubtedly the most feudal government on earth. The semi-independent princes retain much power in their own fiefs, while the interest of each in the politics of the whole empire is made safe by the sense of security from attacks by his neighbors, or of absorption by the state.

The earliest monarch dates B.C. 667, and there have been 126 sovereigns up to the present one, who began to reign in 1853; some of them have been females. His court is at Miyako, (a word which means the capital, like *king* or *tú* in Chinese,) a large city near the centre of Nippon, about forty miles from Ohosaka. He is regarded as the descendant of the Sun-Goddess, though he does not arrogate such idolatrous titles as his compeer at Peking. His common titles are *mikado*, a term analogous to the "lord of the world," and *daëri*, which corresponds to our word "court." He is often called the spiritual emperor, in distinction from the siogoun,

who has been styled the temporal emperor; but both these terms convey erroneous ideas, when used in this connection.

In the eyes of the Japanese, though his power is reduced to a cypher, he is still their emperor *de jure*, and his sanction is necessary to legalize certain acts in religion, etiquette, and succession. His court is now the abode of a large number of titular officers, whose pursuits are of a literary character, and give an air of refinement to their society. The arts and manufacture are carried to a high degree of excellence in this region, and many articles are described as of Miyako work to show their superiority, even though they may not be actually made there. The siogoun has his agent at the city, and the mikado also sends a yearly envoy to Yedo in return for the same compliment paid to him.

The office of *siogoun* (in Chinese *tsiáng kiun*, or commander in chief,) was known in ancient times, and in its duties corresponded to the *maire du palais* of the early French kings; but it was in A.D. 1286, that Yoritomo, then holding the office, made himself independent of the emperor, as Pepin l'Heristel had done in Paris six centuries previously, and established his court at Yedo. This title is still retained, but the more common appellations are *cubo-sama*, which means "Lord of the Palace," and *tenha-sama*, or "Lord of the Empire." In the treaties lately negotiated he is called *Taigoun*, or *Tycoon*, i. e. Great Ruler, an appellation which may be of recent origin.

The power and titles of the siogoun became hereditary in the family of Yoritomo, and the influence of the mikado gradually diminished during the next three hundred years. In the latter part of the 16th century, a man, known afterwards as Taiko-sama, arose, who by his talents and prowess overthrew the family of Yoritomo, completely subduing all opposition of the emperor and the princes, and engrossed the sovereignty in his own person, though he allowed them to retain their titles and fiefs. He consolidated his power in 1603, but was unable to bequeath it to his son, for his coadjutor and intimate friend, Iyeyasu, whom he made guardian of this youth, usurped the station, and founded the present family of the siogoun, taking the title of Gōgōgin. With him the present system of government commenced, and in its prominent features has been maintained to the present day; though by reason of the inherent weakness of hereditary power, dependent entirely on personal character, much of the real authority has

slipped away from the hands of the siogoun into the grasp of his council, and he is now little more than a function in the state, like the mikado, an *effigy* rather than a reality.

This council is composed of thirteen members, five of whom are chief ministers, and eight of secondary rank. At the formation of the council, in 1603, they consisted of the friends of Taiko-sama, and the dignity has since remained in their families. In this we see a remembrance to the council which Darius Hystaspes formed of his friends; but in the functions and power of the Japanese council, there is perhaps more similarity to the Venetian senate. It has a president, who carries on the government while he holds that post; he is responsible to the council for his acts, and for carrying out its orders. It perpetuates itself,—a feature in its organization which accounts for the energy, and partly for the equity of its course during the last two centuries. The members have each a department, whose duties are performed according to a prescribed code.

Laws are enacted or changed by the Council, and the result submitted to the siogoun, who, like the king or queen of England, in most cases ratifies the decisions of the councillors. If, however, he vetoes their enactments, the question is not sent back to them nor is it dropped, but is referred to his three nearest relations, one of whom is the heir apparent. If they sustain him, the councillors must resign in disgrace, or commit suicide, which is supposed to save their characters from disgrace; if they disagree with him, he abdicates his seat, and, report says, sometimes puts an end to himself.

One of the consequences of a political system like this is to give great force to enactments which have already had the sanction of the rulers, and to place the laws far above the lawgivers. It is always difficult to remodel the *institutions* of any country; but in Japan it must render all change and improvement increasingly difficult, when the advocates of a new state of things support it at such a risk. The stability of the government and the apparent contentedness of the people under its sway, must be mainly owing to the general consent which all ranks give to the requirements of law, and the long experience that it has been the safest course.

The respect paid to law is, however, not that of affection but of fear; and the orders of the government are carried out by a system of espionage and mutual responsibility extending throughout the

entire population. Every man and individual, every household and the people of every neighborhood, hamlet, village, and city, are bound to each other by this invisible chain. Each becomes the keeper of his neighbor, for the conduct of that neighbor may implicate himself in the greatest misfortunes. It is, therefore, the interest of every person to maintain the laws, and see, too, that others obey them.

A striking instance of their regard for law was exhibited at Simoda in December 1854. The Russian frigate *Diana* was in the harbor when an earthquake occurred, which shook the town and overthrew many of the buildings, accompanied by an immense tidal wave, which as it rushed in nearly submerged the place, carrying the debris out to sea on its reflux, with nearly a hundred human beings among the broken timbers. The boats of the *Diana* were immediately manned to endeavor to save the wretches from drowning; but out of the whole only two accepted the proffered help, alleging that it was against the law for them to go on board a foreign ship. During the five months Commodore Perry was in those waters, only three unofficial persons ventured on board his ships in the night, though crowds of spectators could be seen on the hills near Kanagawa, most of whom we were told came down from Yedo to get a sight of the squadron.

The princes, commonly called *tono-sama*, differ in their rank and power, and have little authority out of their own principalities. Those of Kaga and Satsuma are now among the most powerful, but all of them were so reduced in 1600 by Taiko-sama, that they have never since attempted to throw off the control of the siogoun, nor is mention made of any internal broils resulting in actual hostilities. They were then obliged to conform to an order to spend half the year at Yedo, and the periods were so arranged that adjacent principalities seldom enjoyed the presence of their own rulers at the same time. The same system of surveillance is in force in all these petty palatinates, (as they might also be called,) and the siogoun has also his own spies, who in some of them are exposed to risk in exercising their functions. In Satsuma it is said to be not very safe to be an imperial spy.

The plan of weakening the princes by obliging them to go to great expenses in various ways, and of placing imperial cities near and in their jurisdictions, is resorted to; but as a whole, peace has been the uniform result of the present system, and this is saying a

good deal in its praise, when we remember what a state of anarchy existed in Europe during the feudal ages. One result of the semi-annual residence of so many dignitaries at Yedo has been to make every nobleman look upon the sojourn at his own capital as the real exile. The officials at Hakodadi, in May 1854, often expressed their desire to get back to the metropolis, which however was no wonder there on other accounts of climate and comforts, as well as family and enjoyments.

The imperial cities and fiefs are numerous, and governed by officers sent directly from court. In 1854, when an article in Perry's treaty of Kanagawa opened Simoda to American vessels, it was set off from the rest of the principality of Idzu, and placed as an imperial city under the prince of Mimasaki; the town was separated, with a small suburban region, from the former authority of the principality. I do not know whether such a division could be made of the territory of every prince; and there are many other questions of internal police, necessarily arising under such a complex state of things, which cannot be answered here. These territorial princes, or counts palatine, (for the word *prince* to my mind seems to imply too much,) do not form usually a part of the council.

There are eight hereditary classes recognized in Japanese society, three of them can wear swords, viz. the *dai-mio* and *sai-mio*, who are the princes; the *ki-nin* or the noblemen; and the *samurai* or military men. Those who are called princes, in the treaties, are merely *hami*, or titular noblemen, raised to that honor by the shogun or entitled to it by birth, and having no territory. Judging by the characters used for their titles, the term *marquis*, i. e. a guardian of the marches, is much nearer to the rank than *prince*, which last appellation corresponds better to the meaning of *sama*.

The priests, gentry, merchants, artisans, and serfs, constitute the remaining classes, except tanners, who are regarded as outcasts, and obliged to live on the outskirts of towns. The principle of hereditary descent runs through Japanese society more completely perhaps than in any other country; though not to the extent, probably, which has been stated, viz: that no man can ever follow any other occupation than that of his ancestors.

The system of responsibility, together with the minute details of etiquette, which officials must conform to, has resulted in a curious form of deception, which the native word *naibon* can alone

properly designate. *Naibon* implies that though the incumbent is dead or has resigned his post, all its duties are still performed in his name, until such time as it is deemed proper to announce officially that his successor has entered on them. The burden of ceremony is so great, and the restraint of official life so irksome, that it is very common for dignitaries of every grade to transfer them to their successors when circumstances admit of their doing so. During the late visit of the frigate *Minnesota* to Nagasaki, the governor officially announced the demise of the siogoun on the 16th of September; but it has been ascertained that he actually died some weeks previous. The convenience of the *naibon* is, among such a people, likely to perpetuate it so long as the system of which it forms a part may exist; but the index it gives of the disregard of the truth should not be lost sight of by us.

In the Chinese hamlets a similar system of eldership obtains, as that here described as part of the Japanese rule, but the latter carry it out more thoroughly. In Japan a commoner cannot go abroad without his passport, — a piece of pine wood with his residence, name, &c., burnt into it, — which he suspends from his girdle; it is his protection and his permission, and he willingly conforms to the law for the sake of the security it affords him. By means of it he can be traced everywhere, and without it he had better, as the phrase is, “be nowhere.” The headmen, or *ottona*, of these tithings, examine small crimes, and punish the guilty without further appeal, but more serious misdemeanors are taken before the judges. There are not, it is said, many public executions in the empire; and I was told that only three persons had been beheaded in Nagasaki the last year, and those for smuggling.

Suicide is very common and even considered rather honorable. One of the chief interpreters informed me that he had heard of as many as five hundred cases in a year, which at least proves how very common it is, even if he had no foundation for his statistics.

One instance of the effects of this system of the solidarity of neighborhoods was exhibited when the shipwrecked sailors, carried back by the *Morrison* in 1837, had gone ashore to report themselves at a small village near the entrance to the Bay of Kagosima. They gave the whole detail of their location to the headmen, hoping then to be received and restored to their friends; but when refused a landing, they said that it would now be useless to put them ashore privately, for this information would be sent to their

homes, and they would be arrested and imprisoned as soon as they appeared, for the crime of conducting a foreign ship to the coast against the laws.

The dress of the Japanese of both sexes is very simple, consisting chiefly of long robes, like nightgowns, worn one over the other. In summer the laboring men go as nearly naked as decency permits, and the women generally uncovered down to the waist. The material of apparel is usually cotton, the rich wear crape and other silk, some of them of very fine texture. The men shave the top of their heads almost daily, tying the hair on the crown into a queue, an inch or two long. The socks of both sexes have a separate place for the great toe, in order to allow it to close upon the clasp which retains the straw sandal on the feet. Leggings are worn, but no trowsers. Large girdles confine the gowns,—and a capacious bosom is thus made, in which the wearer carries a variety of articles. In other cases, the mouth of the wide sleeves are sewed half way, so as to form a pocket, in which light things are placed, and a reservoir for the nose-papers which are used instead of handkerchiefs.

The common official dress, which is worn over the other, consists of two parts. The upper garment is shaped somewhat like a large old-fashioned ladies' cape, wide and stiff on the shoulders, where it projects two or three inches, and is fastened at the waist; the lower garment resembles loose trowsers or over-alls, open at the sides. The cape has the wearer's coat of arms stamped on the right and left breasts and on the back, and his two swords are thrust through the girdle underneath it. These swords are worn in the most inconvenient manner, and are very seldom laid aside in public.

The dress of females is confined by a broad girdle on the outside, which is tied behind in an immense knot. Their hair is bound up in a tuft on the back of the head, somewhat like that of Chinese women; in front its jet black color is relieved by gay hair-pins of silver or glass, by a flower, or by a bow of crimson or blue crape. A dozen or more of these hair-pins are sometimes stuck in sideways, giving the head a strange bristling aspect. On the birth of a child, a married woman shaves her eyebrows and blackens her teeth,—a custom which though not so painful and discommoding as the Chinese fashion of crippling the feet, is more repulsive to a stranger, and disfigures their faces in a way that must be seen to be appreciated.

Their marriage ceremonies resemble those of China in many particulars, such as the employment of a go-between to arrange the match, the worship of the ancestral tablets, &c. The sexes are not separated to the degree known in China; but I do not think that the relative position or influence of females is higher than it is among the Chinese. Polygamy is legal in both countries, and its consequences are the same. Instruction in embroidery, and other kinds of needlework, skill in playing on the *samishken* or guitar, and singing, with book learning enough to enable them to write a letter or cast up an account, seem to be their principal accomplishments. The most educated women of the common people are said to be courtesans,—who are, however, often honorably married.

At the marriage ceremony a singular contrast to our own ideas as to the meaning of the same dress is noticeable; the bride is nearly concealed in a white robe, which is among these islanders emblematical of her shroud, meaning that she henceforth is dead to her own ancestors, and has become incorporated with the family of her husband.

The Japanese are a social people, and contrive to have many public festivals and holidays, as well as private feasts and merry-makings. Every town has its annual *matsuri*, or patron saint's day, at which the whole population assist. The day for the worship of the graves is a grand occasion; and if the night be pleasant a beautiful sight is exhibited at such a place as Nagasaki, in the various fire-works and illuminated boats which are sent out to float away on the water.

It is one part of polite education to learn how to send presents properly to different grades of people. Every present should be accompanied by a strip of dried fish or seaweed enclosed in a piece of paper and tied loosely with a red and white string. The meaning of this has been explained, by some, that the giver hopes that his friend is in good health and able to eat as usual; while others, with perhaps more reason, say it refers to the humble origin of the Japanese, whose ancestors were simply fishermen. To omit this accompaniment on any occasion would be highly indecorous, as an incident will illustrate. The day before leaving Hakodadi, I was conversing with Yendo, the deputy bungio, while waiting for a shopman to bring in some pictures on silk I had engaged of him. Yendo looked at them as I turned the parcel over to see

if all was right, and seeing me about to pay for them insisted on giving them to me as his parting remembrance, their cost being a mere trifle. I agreed to the proposition,—but before he could or would hand them to me, he sent a servant to buy the usual seaweed to accompany them.

Rice and fish form the staple articles of food with all classes. The former grows throughout the southern parts of the country,—some of it upland rice, which does not need much water. Wheat, barley, buckwheat, and millet are also largely cultivated. Broccoli, sweet-potatoes, eggplant, rape-cabbage, and other culinary vegetables increase the list of plants used as food. Every thing from the sea or river, fish, shellfish, seaweed, mussels, &c., all are eaten; indeed fish is to a Japanese, what roast-beef is to an Englishman, or sauerkraut to a German; he regards it as necessary to a meal, and the seas around him bring it forth abundantly.

Tea and *saki* are their only beverages. The finer sorts of the former are described as equaling the best descriptions of Chinese leaf, and the plant grows in most parts of the southern islands; near Simoda and Kanagawa it is a common hedge shrub. *Saki* is the native name for the spirits distilled from rice, and is like arrack or *samshoo*, its taste not being very agreeable to those who are uninitiated. The best comes from Lewchew.

The dwellings of the Japanese are chiefly constructed of wood, unpainted and without chimneys or windows. They are built so that, in case of an earthquake, the outer frame-work and the inner partitions and moveable panels will fall as one mass, and not crumble in beneath the roof; for in such a case the inmates could better escape from under the ruins than from a mass of brick. The roofs of dwellings generally project beyond the walls, increasing the darkness of the rooms; they are of brick tiling, neatly laid in mortar and guttered; the eaves are furnished with troughs to collect the rain. Sliding panels, covered with thin paper, form the substitute for windows. Poor houses are covered with a turf or straw thatch, about a foot in thickness, which renders them dangerous in case of fires; and this is a calamity which very often occurs in Japan. While one of the Dutch embassies was in Yedo, a fire occurred which destroyed more than half of the city, and owed its ravages, in a great measure, to the number of these thick inflammable thatches.

The floors are raised about two feet above the ground, in common houses and shops, and are covered with mats on which the family sleep, and by day carry on the business of the shop. No chairs, tables, bedsteads, couches, or any of the numerous articles of furniture, which fill up apartments in western lands, are seen in them. They are warmed by braziers, placed in the middle of the room, filled with burning coal or charcoal.

When Commodore Perry gave to the Japanese Commissioners at Yokohama the various presents which had been intrusted to him by the American Government, he told them that among the return presents he would be happy to receive the entire furniture of a room, in order that he might fit up an apartment in the White House in good Japanese style. They assented, and when their articles in exchange were brought in, showed him a pile of a hundred fine mats as the fulfilment of his wish.

These mats are kept scrupulously clean, and being cheap are easily renewed when worn-out. The remarkable cleanliness of the Japanese is somewhat to be ascribed to their usage of sitting on the floor, for it must be kept tidy if it is to serve successively for table, bed, and parlor, during every twenty-four hours, or else the house would soon become intolerable. The habit of leaving the sandals at the door and shaking the feet clean before stepping on the mats, promotes general cleanliness. The contrast between the appearance of Nagasaki and Shanghai, in this respect, must be seen to be fully understood.

In the rear of the house there is usually a courtyard, where a few plants in pots, a pond for gold fish, a tree or two, and sometimes a shrine for an idol, are all neatly arranged, pleasantly exhibiting the tastes of the householders. Near the house in which the headman of Yokohama lived, there was a pretty ornament of a grafted fir and pine tree, which had been dwarfed and trained to spread over the ground, for a rod or more, a few feet above it and covering a little fish pond. Many years' careful culture had been expended to bring it to that condition. A mile or two from it was another larger tree, a pine, which had been trained to form an umbrella-like arbor on the bank of a rivulet; it was near a hamlet, whose inhabitants could thus refresh themselves in the heat of the day, and evidently did so from the seats placed underneath its shade. The top of this tree was as nearly level as possible, and measured over 200 square feet!

The streets in Japanese towns are wider than in Chinese. In Nagasaki, the gutters run underneath a granite pavement in the centre, each side being made of a composition exceedingly hard and smooth. Other streets are made like macadamized roads, but not so hard. In Hakodadi the streets are nearly all made in this way. Many of them in both places are swept and watered almost daily. In all towns substantial wooden gates divide the streets into neighborhoods and from each other, and near them are the police stations. These gates, among other uses, prevent the rush or the assemblage of crowds and mobs, and thus assist the authorities in maintaining order. Near them are to be seen charms and prayers of various sorts, exhibiting the superstition of the people. It was remarked that in Simoda the things which we did *not* see made a curious catalogue, as showing its contrast with American towns. There were no bricks, no window-glass, no fire-places, no pigs, no sheep, and no beggars,—the last item being the most surprising of all after seeing their numbers wherever one goes in China.

The language of the Japanese is mellifluous from the preponderance of vowels. Until about B. C. 200, when the Chinese was introduced, they seem to have had no written language; and it was not until the first part of the eighth century A. D. 733, and after, that the present mode of writing was introduced, by selecting parts of Chinese characters to represent their syllables. Unlike most other languages, the Japanese is written with syllables, not with letters like our own, nor with characters like the Chinese, but with indivisible syllables, like the mode adopted by John Guert for the Cherokees. There are 48 symbols, but by means of diacritical marks, the number of syllables is increased to 72. In this syllabary, or *iroho* as it is called from the first three sounds, there is no *l*; and it is difficult to express many sounds common to other languages, though the elision of vowels is frequent. A written word cannot end in any consonant, except *n*; but the syllables *fu*, *tsu*, *ku*, and some others, are elided in speaking, as *ftats* for *futatsu*, *sikok* for *sikoku*, *Nippon* for *Nitsupon*, *shrano* for *shirano*, &c.

The first syllabary, formed to express the Japanese sounds and called the *kata-kana*, was very simple, but not long after three others were invented to repeat the same thing. Parts of other Chinese characters were selected, to denote the syllables, sometimes

two or three for the same one, and then the entire characters were introduced. The one now most in use, called *hira-kana*, is a kind of running-hand, and contains over a hundred forms, and if it was the only one used would not increase the labor of learning to read, but it is joined with the two others, called *yamato-kana* and *manyo-kana*, in a most perplexing way. These latter syllabaries are however rather Chinese characters, taken to denote a sound with some reference to their meaning, than mere phonetic symbols, and in a manner which resembles that said to have existed among the ancient Egyptians.

The Japanese scholars, unfortunately for themselves, perhaps, having the Chinese language to draw from, have gone on introducing its characters into their language, apparently for no other reason than to show off the learning of the student. Pedantry has multiplied the media of thought by allowing a great variety of symbols for mere sounds, and then adding these characters as substitutes for native words, until the medley is very troublesome. In short, I should place the Japanese written language at the head of all living tongues for difficulty of acquisition; not only has the student to learn about three hundred arbitrary symbols for the mere sounds of the *iroha*; but he must become acquainted with Chinese too, both the regular and running-hand, as both are used indiscriminately. Owing perhaps to their isolation, the meaning of many characters has been altered by the Japanese, so that I have seen a good Chinese scholar unable to understand some specimens of their composition.

The spoken language is exceedingly rich in expressions, for it has had the resources of Chinese to draw upon, and facilities of combination of its own to an almost unlimited extent. It has also inflections of tense, case, and mood, which with gender and number are all lacking in Chinese. There is one peculiarity in it, found indeed in most Asiatic languages, but here carried to a very high degree, viz: designating the position of the hearer by the mode of addressing him. It is not exactly like constantly interlarding the words, *your honor, your worship, my lord, &c.*, in English, though it has this effect. The difference in the same phrase spoken to an inferior and to a superior will partially illustrate this. In the question, Where are you going to-day? the first will be

Kon-nichi omaiyewa nani no tokoroni yukuka?

but when addressed to one higher in station, it is

Kon-nichi no kimi wa nani no tokoroni on ide asobasaruka?

While the spoken language is euphonious and comparatively easy of acquisition, a full knowledge of the written is the labor of years. Certain names, as those of people, places, time, deities, &c., are usually written in pure Chinese, and the knowledge of these characters is general and indispensable. A Japanese does not try to talk Chinese; he changes it, when reading, into his own sounds, or else translates the meaning, somewhat as he pleases.

Education is general, but probably goes only as far as an ability to read or write a letter, to cast up accounts, or peruse an easy story. One native informed me that the seven years he had spent at school were occupied almost wholly in these branches. It is praiseworthy that with such difficulties the people should be so generally educated in their own literature; I was told there were fifty schools in Nagasaki, but only one book-store, and the number of books seen in the streets is less than in China.

In English we have adopted three words from the Japanese, viz: *soy*, *bonze*, and *moxa*, to which I think *saki* and *naïbon* are likely to be added.

The religion of the Japanese much resembles that of the Chinese in its great lineaments; it has more power over them, and they seem to be more under the influence of their priests, who consequently hold a higher relative position in society. The worship of ancestors is at the foundation of the national faith, and the intervention and intercession of the Buddhists are used in all ceremonies relating to the dead.

The system of ancient mythology of the Japanese still remains distinct from Buddhism, as is the case also in China. It is called Sinto, and is celebrated in its own temples, or *tera*, which are placed under the guardianship of sextons, who usually reside near them with their families. The shrines of this sect are seen everywhere, by the road-side, on the tops of hills, and in groves, sometimes with an image, and at others only a picture. At one of them near Simoda, sailors who had escaped shipwreck or made a good voyage had presented many votive offerings of small junks, pictures, oars, and other articles, among which were scores of queues cut off from their own heads. Pilgrimages are common to the spots deemed sacred, and these places of resort are famous for their attractions.

The Buddhists came to these islands about A.D. 550, and though received with suspicion, ere long made way for their tenets by adapting themselves to the habits of the people. Buddhism is a pliant faith, willing to take almost any form, and during its long isolation in Japan has adopted many rites quite unknown in Ceylon or Tibet. The temples, called *miya*, are larger, more costly, and much more numerous than the *tera*; graveyards are usually placed near them. Their priests assist at funerals and masses, and exhibit so many ceremonies in their worship like those of the Roman Catholics, that one is puzzled to decide which copied from the other. Their temples, unlike those in China, contain great numbers of ancestral tablets, some arranged in a separate apartment, and others, as if belonging to particular families, placed in small chapels or side oratories. These temples are models of cleanliness and usually well lighted—presenting a great contrast to the dingy, dirty abodes of the same sect in China.

A singular result of the long seclusion of the Japanese is seen in the use of Tibetan words and sentences for charms, as if they were really, as they are to them, parts of a dead language. These Tibetan charms are seen written, with short prayers in Chinese, on posts at the street gates, and over the doors of private houses. In the graveyards these posts are tall and very numerous, and some of them are provided with a small iron wheel, inserted in the wood; a turn of it when set a whirling, is reckoned as equivalent to saying a prayer. In every place the idolatry and superstition of the Japanese are seen; like the Athenians they are in all things very superstitious; but all their services have no effect in improving their morals, which are more openly licentious than most heathen nations. Budhistic and other images are scattered over the country in vast numbers, but their worshipers derive neither happiness nor instruction from them.

In their tombs and epitaphs they present many differences from the Chinese, and a collection of the prayers, written on the posts, would vividly illustrate their theology. The body is placed or forced into a small square grave, and over it there rises an obelisk, a pillar, or a mere upright tomb-stone. In the epitaphs, which are altogether in Chinese, the deceased are called “believing scholars” and “believing women.” It is the custom to place fresh flowers frequently before the tombs, so that the cemeteries are constantly visited.

With respect to the manufactures of the Japanese, and their attainments in the arts of designing, weaving, printing, and other branches of labor, it is impossible here to enter into many particulars, or attempt even to describe those which are peculiar; and the desirableness of doing this is very much lessened on account of the great variety of specimens of their best productions in porcelain, lacquered-ware, silk, crape, metals, &c., which have latterly been brought to Shanghai by recent visitors to Yedo and Nagasaki. You have doubtless examined these and formed an idea of their relative excellence, when compared with the same articles in China or Europe. The ingenuity and skill of the people, by reason of their very seclusion, perhaps have been more severely taxed and more fully developed than would have been the case had their country been opened: this much is certain, that the Japanese at present entirely supply their own wants; and the trade which attracted and employed so much capital at the beginning of the 17th century, has now to be almost recreated.

Since the closing of the ports of Japan to Europeans, about the year 1635, when the Dutch were allowed to retain their factory on the islet of Desima at Nagasaki, the people have learned more and more to depend on their own productions. The trade, up to that time, had been mostly in the hands of Spaniards and Portuguese, and had been profitable to these three nations, though the details of its articles or their amounts are not clearly recorded. It was a trade famous in those days for the quantity of gold and copper it introduced into Europe, and their enormous drain is alleged by the Japanese rulers as one of the reasons for restraining it.

The Dutch accepted the proffered opportunity of remaining in the place of the Portuguese at Desima, to supply the Japanese with certain European commodities. There could be no worse instance cited, of the lengths to which commercial, religious, and political rivalry were carried in those days, especially between the Dutch and Spaniards, than the assistance given, at the request of the Japanese authorities, by the Dutch chief Kockebekker with his ships, in destroying the last remains of the native Roman Catholics at Simoda. It was a disgraceful act; but it was done at a period of the bitterest hatred, and must be judged of by the spirit of those times.

The trade with the Dutch was carried on under many vexatious restrictions, and gradually diminished in amount while the expenses

remained the same, until the whole total of imports and exports were, in 1846, under two millions of francs. The exports consisted of copper, vegetable wax, soy, lacquered-ware, straw boxes, paper, porcelain, saki, and sundries of silk, camphor, curiosities, &c., for which they exchanged sugar, fancy European articles, medicines, &c. The trade had been rather a losing one for some years past.

The Chinese were confined to Nagasaki at the same time with the Dutch, but their trade does not seem to have been so much restricted, and has probably been on the whole quite equal to the demand and supply, and is now much more necessary to the Japanese than the other. They carry to Nagasaki raw silk, sugar, woollen cloth, gold thread, and a great variety of medicines, such as are known in this country, and to an extent in some years enough to load a dozen junks. They take away many articles of food, some furs, pearls, straw boxes, and lacquered-ware, in the proportion of three-fifths, copper forming the other two-fifths.

The Chinese dwell on the mainland within a walled inclosure containing several acres, where they constantly remain. An unsuccessful attempt was made through the governor to visit their residence, while I was lately in Nagasaki; and in the reply, sent through him, one reason for the refusal was stated that neither I nor my friend Mr. Syle had any acquaintance with those people, as they had been asked if they knew us. There are many native women allowed in the compound, but the Chinese are not permitted to go at pleasure about the town, for the Japanese seem to be afraid of them, and of granting to them much liberty. Their number is less than formerly, and is now under a hundred persons, all of whom come from Chapu in Chehkiang.

The currency of Japan is cast like the Chinese; it is composed of copper, gold and silver. The *koban*, a thin gold coin, like a wafer, is reckoned to be worth one tael of silver of \$1.33. One quarter of a tael is an *ichibu*, or 33 cents, an oblong silver coin, three of which equal a dollar; there is also a gold *ichibu* of the same value; and a piece made of gold and silver worth half an *ichibu*, or 16½ cents, called *ni-shin*. The *issin* is the smallest silver coin, about 8 cents, 16 of them being worth a *koban*. The copper coins are the *zeni* and *toikiaku*: the first is a cash, of base metal; 1000 of them are equal to a tael: the other is worth 100 cash, or a mace, each; it is about the size and shape of an egg, cut lengthwise, and the best made of all the Japanese coins. As an instance

of the comparatively limited intercourse between distant parts of Japan, it may be mentioned that this last coin is sold in the streets of Nagasaki as a curiosity, while it is the common currency of Simoda and Hakodadi. Paper money is used at Nagasaki in foreign traffic. The bills are oblong strips of thick paper, about one-fourth the size of a Bank of England note, having various stamps and checks upon both sides; their denominations vary from half a mace or 50 cash up to 500 mace, and they are renewable annually. Their rate of exchange at Nagasaki, for foreign silver coins, varies from time to time; it is now about 43 and 4-fifths of a mace for a dollar, which is a discount of about nine per cent. The relative values of silver and copper are nearly the same as in the United States, but those of silver and gold are nearly as 6 to 1, which makes the latter metal only about one-third of the value it bears in other countries. This remarkable difference will ere long cause the gold rapidly to disappear from the country, as soon as commerce extends; the reason of this extreme cheapness has not been satisfactorily explained.

The treaties which have been formed during the past few months, between the Japanese and the ministers of the five western nations most interested in their prosperity, are the result of many attempts, by each of them, to reopen amicable relations. Though they all failed to effect any apparent change in the laws until Commodore Perry's treaty was signed in 1854, they doubtless all had some effect upon the Japanese authorities in bringing about a modification. The hour for this lecture affords me time only briefly to notice the more recent; for it is unnecessary to go so far back as the attempt of the Portuguese in 1639, when the citizens of Macao sent their envoys to ask a resumption of their trade, and nearly the whole embassy and ship's crew were executed at Nagasaki by the vindictive Japanese.

The Russians, in 1792, sent an envoy from Siberia named Laxmann who was favorably received, and urged to return. Circumstances prevented his doing so, but in 1804 the Emperor sent Count Resanoff as his special ambassador to resume negotiations. He was not received courteously, and after a delay of six months at Nagasaki, under very irksome restrictions, he was dismissed with a refusal. Irritated at this treatment, he instigated two Russian officers with their men to make reprisals on some unprotected fishing villages on Yezo; this of course only exasperated

the Japanese authorities, who watched their opportunity till in 1811 they had the chance to capture Golownin, Rikord, and some other Russian officers, and detained them prisoners many months.

The Dutch have never sent a special mission, but many of the chiefs of their factory have from time to time endeavored to show the Japanese the benefits of a more liberal policy, yet apparently with no success. In 1844, the king of Holland made particular efforts to this end, setting forth the advantages of commerce with Europe, and offering his assistance in any way to promote it. The constant suggestions of the gentlemen of the Dutch factory have no doubt contributed much to explain points which were not clear to the Japanese, and led them to see the matter in a practicable light, but more decided action was necessary to get them to move.

The English had very little trade with the country when it was closed in 1640; and have not since that time made many attempts to resume it. In 1803, the merchants of Calcutta sent a vessel to Nagasaki; and in 1822, Captain Gordon visited Simoda, to see whether any trade could be effected; both these attempts proved unsuccessful. The vessels sent by Sir S. Raffles from Batavia, during his sway there, in 1811 and 1812, were admitted only as Dutch ships, and no progress was made towards securing trade under the English flag. The unhappy results of the violation of the neutral port of Nagasaki by the English frigate *Phaeton* in 1814, and the details of the later visits of the *Samarang*, in 1844, and of the *Muriner*, in 1848, to Nagasaki and Simoda, are all known. None of these experiments were specially ordered by the English government, and nothing was learned by their officers as to the sentiments of the Japanese.

The French, under Admiral Cecille, commanding two or three ships of war, visited and surveyed the Lewehewan archipelago in 1845 and 1846; afterwards he entered the harbor of Nagasaki, where he was received courteously; but no intercourse with the people was allowed.

The Americans began their efforts to open trade with this country at an early period in their history. In 1797, an American ship, commanded by Captain Stewart, appeared in the harbor of Nagasaki and obtained a cargo under the Dutch flag. He came again two years after; and seems to have also been employed by the Dutch government at Batavia, with one or two other ships of

the same nation, to carry on their trade during the hazardous times of Napoleon's European wars. This same Captain Stewart, determined at last to show his own colors, anchored in Nagasaki as an American ship, demanding free trade; but the demand was rejected, and he left the port without a cargo.

Many years elapsed without any further attempt on the part of Americans, when a good opportunity seemed to present itself to make one more. Three shipwrecked natives, the only survivors of a crew of twenty-seven, who had drifted in fourteen months across the Pacific to the Columbia River, and were thence sent to England by Sir G. Simpson, had recently reached Macao. They were joined by four others, likewise driven off by storm to Luzon and thence sent to China. Mr. Charles W. King, of the house of Olyphant & Co., Canton, determined to take the whole seven directly to Yedo, all intercourse at Nagasaki having been so often refused. He sailed in the *Morrison* (a ship named after the Rev. Robert Morrison) in July, 1837; and as that was my first visit to Japan, I may be allowed to detail its principal incidents.

To show her peaceful character, her four guns were taken out and Mrs. King accompanied her husband on the voyage. The *Morrison* stopped three days at Napa in Lewchew, where the proposal was made to the Japanese themselves, as they best understood the risks, to be left and thence find their way home; they preferred to stay by the ship. She made the entrance to the Bay of Yedo in thick weather; and, guided by the experience of our Japanese navigators, proceeded onward into waters which were perhaps never before visited by a foreign keel. The morning light showed the headlands near where the town of Uraga lay, and the sound of distant guns showed that the Japanese were on the alert. She anchored about four miles below the town, for the shot were seen falling in the water, and the navigation became more uncertain. During the day one or two officials came on board, who would enter into no conversation, and also one or two hundred of the common people who were allowed to look at everything on deck.

Next morning at dawn four cannon which had been brought down to the beach opposite the ship, began to fire upon us, and continued to do so for six hours as rapidly as they could, until we could get up the anchor and make sail; four or five large boats, armed with guns, then pursued the ship until she was far down

the Bay. No serious damage was done by the three or four random shot which came on board. She then sailed down the coast till she got off the Bay of Kagosima, where Mr. King determined to make another trial to communicate with the authorities. Here the men were landed at the first village, as soon as the ship entered this beautiful bay, and allowed to tell their own story. The villagers commiserated their unhappy lot, but the headmen had no power to receive them, and referred the matter to the prince of Satsuma, sending him all the particulars of their names, vessels, and business. We remained at anchor for three days, when a boat came alongside to say that the men could not be received there, but must be taken to Nagasaki. Early the next morning, while yet at anchor, a company of matchlock-men were ordered out to add, by their firing at us, energy to the refusal.

The *Morrison* now took her departure from the Japanese shores, and returned to China having still on board the seven men we had hoped to have returned to their homes.

The name of the excellent man who commanded the *Morrison*, has been commemorated by Admiral Cecille in the "Ingersoll Rocks," lying southwest of Kagosima, discovered by the former; and the headland near where the four guns were placed is now known as "Morrison Bluff."

In striking contrast to this rude reception was the treatment of the whaler *Manhattan*, whose captain had picked up the crews of two water-logged junks and taken them up the Bay of Yedo in 1845, nearly to Uruga. He was not permitted to land, but the sailors were cheerfully taken ashore, and his ship supplied with spars, provisions, and water, though he was told not to return even if he found more shipwrecked natives. In 1846, Commodore Biddle, by direction of his government, visited this Bay in the U. S. S. *Columbus* and *Vincennes*, formally to request the Japanese to open their ports to some extent for the accommodation of American whalers frequenting these seas. He likewise was unsuccessful. About that time the authorities issued a notification, through the Dutch, to all the world, that henceforth no ships bringing shipwrecked natives would be received, as all such unfortunates could be returned to their homes through the Dutch or Chinese.

In 1849, Captain Glynn of the U. S. S. *Preble* went to Nagasaki,

and took away several American sailors who were detained in prison there, and had been harshly treated.

These repeated visits had attracted the attention of the world, and especially of the government at Washington, whose interests in the Pacific were constantly becoming more important, from the rapid settlement of California. The President of the United States, therefore, resolved to set on foot a more serious attempt than had before been made by any government, to come to a better understanding with the Japanese authorities on two or three points. With this object in view, Commodore Perry was instructed to concentrate the East India squadron in the bay of Yedo, and lay three propositions before the siogoun for his consideration and acceptance, viz. the humane treatment of shipwrecked sailors cast on the shores of Japan; the opening of ports where vessels in want of provisions could be supplied; and the establishment of a dépôt for coal, somewhere on the southern coast. The squadron anchored off Uraga in July 1853, and the President's letter was received by the prince of Idzu on behalf of the siogoun at the village of Goriama. I made one of the landing party on that occasion, and it was ample gratification to me to see a force of nearly 700 Americans go ashore in the presence of about 3,000 Japanese, within half a mile of the spot where, sixteen years before, they had opened their cannon at the *Morrison*.

The Commodore returned the next year and resumed negotiations at Yokohama, where he concluded the treaty of Kanagawa, March 31st, 1854, by which compact the Japanese government resumed amicable relations with other nations, granting all and more than all the President had asked. The merits of the Commodore's negotiations are to be judged therefore by the terms of that letter. It was recently remarked in the *North-China Herald*, in a notice of Lord Elgin's visit to Yedo, that "It would have been well had Commodore Perry of the U. S. Navy adhered in his treaty closer to the text of Capt. Saris's concise and liberal document, and we can only hope that Mr. Consul-General Harris of the American Legation at Simoda, in his haste to sign a treaty with Japan, whilst the echo of the Allied guns from northern China was still booming in the ears of the nervous Japanese, has secured as good terms for Europeans in their future intercourse with those people."

There is not time now to go into particulars respecting this point;

it should be stated, however, that Commodore Perry proposed all that was in Capt. Saris's treaty of 1613 (long ago annulled by Japan) and much more, but the consent of the Japanese as well as the Americans was first to be obtained. No resort to force by them was contemplated in any case, but a full explanation was made of the desirableness and benefits of a better understanding and free intercourse with other nations. The chief interpreter, Moriyama, said on one occasion, "You must give us more time; it is all very plain to you, but we are now like people coming out of a dark room into the glance of sunshine, and we do not yet see the bearings of things clearly." To make a favorable impression on the minds of the Japanese rulers and people of the power and peaceful designs of the United States, was better than to force them by the capture of a fort, or the threat of a bombardment, to grant what they were determined to resist in detail.

The regulation of the rate of exchange, by which foreign coins were taken at only a third of their value, and for allowing which Perry has been so often blamed, was made by them to hamper trade, which they were careless about. The Commodore vainly endeavoured to show them its injustice, but he never sanctioned it.

The treaty of Kanagawa was friendly and not commercial; it did not provide for trade; and when, soon after its ratification, two persons with their families presented themselves at Simoda to reside, the Japanese properly refused them permission to do so. The residence of a Consul was guaranteed in it, and obtained, too, with much difficulty; but its benefits have been conspicuous, and Mr. Harris too has now obtained further privileges for his own and other nations. His treaty was drawn up and ready for signature before he, or the "nervous Japanese," ever heard of the attack on the forts at Taku, and only signed just as it was agreed to after learning that news.

To claim precedence, however, in such small details, where the privileges obtained from great pagan nations of the earth like Japan and China are as much for their benefit as for our own, is but a petty rivalry. It is a triumph, in this time of the world's history, to know that intercourse with Japan has been reopened, by Christian nations, without injury to a single individual in the empire, without browbeating or threatening its government, and I believe with the general consent of the people. Treaties signed at its capital successively with the ministers of the United States,

Holland, Russia, Great Britain, and France, attest the success of the policy commenced by Commodore Perry. Though their compacts supersede his, and that of Admiral Stirling's of 1855, I wish to place his negotiations as their basis, and it is a gratification to learn that the Japanese officials remember him with respect.

By these several treaties, then, we may regard Japan as giving up her seclusion of two centuries, and she seems to have done so with a full willingness to risk the consequences. We are ignorant of the discussions and steps which have led to this result, but there have been many and serious deliberations respecting it, formations of parties among her highest statesmen, resulting, we are told, in the dismissal and degradation of the minority. It would be interesting to know the history of these debates, for then we could form a better estimate of the value of the concessions, and understand to what degree they are likely to be carried out. It may be very easy for us, possessing the consciousness of superior physical power, and ready on occasion to resort to it, not to care much for those laws or institutions of the weak nations of the earth which make against our own notions; but at present this principle of procedure has no place in the law of nations.

The difficulty, however, when two nations come into contact politically, without previous knowledge of each other's views and power, is to prevent the weaker in its folly from irritating the stronger through acts prompted by pride and guided by ignorance, acts which must urge the latter to use force to right itself. In such a position, the latter may, in asserting its rights, be in antagonism to its own best interests, by doing things which shall only provoke and destroy, and not teach the offender.

The treaties which have opened Japan as far as they have, (and the same remark is applicable to China also,) give the right of being governed by his own laws to the stronger party to those compacts. There are other rights granted in them too, besides exterritoriality, and we ourselves, as belonging to that stronger party, will be careful to claim all we have a right to. But while we have rights under these treaties, we have duties also; and we cannot leave our duties to be done by others, while we claim the rights, and force their acknowledgment. Our obligations to do to a weak, and ignorant, a prejudiced, and a lying pagan, as we would have him do to us, are not to be measured by his attainments, nor our culpability in wrong doing by his ignorance of our laws.

The Japanese have entered into treaties whose full consequences they may not understand. Five great nations of the West have required them to do so, and those nations will doubtless hold them responsible for their fulfilment. But those nations, in taking upon themselves this tutelage, have taken a great responsibility. The United States, for instance, in making their treaty with Japan, pledge their citizens to the observance of the obligations of peace and amity it contains. This treaty and that too with China have the form of law, and bind the public faith. They affect the individual conscience as firmly as an act of Congress, passed in conformity with the Constitution and pledging the public faith. The treaties are made in the name of all and in behalf of all, by the constitutional authority, and no citizens can deny or evade their stipulations, or break the pledges they contain. The central government is alone invested with the power to repeal a treaty, or dissolve the obligations of its citizens. It cannot encourage any of its citizens to disregard the condition of a treaty, or connive or wink at violations of the spirit of these treaties while it pretends to maintain them. The same principles also apply to the others of these five nations, to Great Britain, Russia, Holland, and France, for they form the chief safeguard as to the validity of such instruments.

It is no reason, surely, for us to excuse ourselves from fulfilling the duties we owe to the Japanese, or Chinese, because they have not the force to compel us to do so. These two secluded nations, with their vast population, have been opened in a remarkable manner during the present year to intercourse and influences from abroad, for some higher and better purposes than merely the extension of trade by the development of new markets, or even the gratification of the most intelligent curiosity; though these two objects will be best promoted by attending to the higher purposes I allude to. These nations are sunk in ignorance, and the ignorant have no desire for what they do not understand or feel the want of. They are weak, too, because they are wicked; and they are wicked, and vile, and mendacious because they have no knowledge of the Truth. We must not look for honesty, purity, and power, therefore, among such; but still our duties to them are not to be avoided, and they cannot be disregarded, without our ultimately suffering ourselves.

Situated as we are on the confines of these two empires of the far East, we are, and have been, and will be, exercising an influence

for good or evil upon their inhabitants that we ourselves cannot estimate. It is like the power of a ship under weigh, whose momentum is often most disastrously seen as she crashes into another ship, to their mutual destruction. This influence we cannot help if we wish it. We may look to governments to make treaties, but the real results of these instruments, their good and their evil consequences, lie mainly in our own hands. If we conduct in a manner to prove to the Japanese and Chinese that their worst fears are likely to be realized, and thus set the people justly against us through our own individual misbehavior, no treaties, no promises, can alter their views and feelings. In their present mind they know that only force, or the fear of force, can restrain them from carrying out their evil intentions; but when they see us individually acting from higher motives, and not using force, but reason and patience, they will receive the influence and instruction they so much want.

This community in Shanghai, especially, occupies a position in relation to China, and will soon to Japan, which makes its influence very great. Whether that influence shall extend and be advantageous to them, depends far more on your individual bearing towards the people, than on the stipulations of treaties or the presence of force. Trade will enlarge when it brings mutual benefits, and peace is a necessary function to its great development; but there is a merchandise of forbearance, of equity, and of kindness towards the weak and even the wicked, which has greater beneficial results to both parties. China and Japan were both open to occidentals two centuries ago, but I am inclined to think that they were allowed to be again closed to preserve them intact from foreign conquest: nor can I divest myself of the impression that, as they are no longer in much danger of that in this period of the world's history—(when it is felt that to conquer a weak nation as Pizarro or Cortes did is not the best use which can be made of it), they have been reopened to receive the great benefits of a higher faith and civilization.

In one respect the Japanese stand in advance of their ancient neighbor, in that their attention is directed to obtain a knowledge of other nations. Their own efforts in this way will form their greatest security. Their soldiers once formed the body-guard of the king of Siam; their consuls once examined Spanish ships in Acapulco; their sailors once took a Dutch governor out of his

house in Formosa, and carried him prisoner to their rulers; their princes once sent an embassy to the pope; their emperor once defied the vengeance of Portugal by executing her ambassadors. The knowledge of these historical events remains among them. We may reasonably hope for a great preponderance of good results from an extension of an intercourse, which has recommenced so peacefully. Let us indulge the expectation that the land of the Rising Sun may not only soon be fitted for taking her place among nations, but also among Christian nations, and with all the institutions and liberty and purity of the best of those nations.

ARTICLE VI..

ON THE STUDY OF THE NATURAL SCIENCES IN JAPAN.

BY THR. J. L. C. POMPE VAN MEERDERVOORT, M.D.

Read before the Society on December 23d 1858.

IN compliance with the request of the Japanese government to attach a naval surgeon to the second detachment of the Royal Dutch Navy, appointed to teach the Nautical and Military Sciences in Japan, I was placed on board the screw-steamer *Japan*, which was to be sent out as a war-steamer. Leaving Rotterdam on the 25th of March 1857, and having visited on the passage Lisbon, the Cape of Good Hope, Batavia, and Manila, I reached Nagasaki the 22d of September. Soon after my arrival, I was informed by the Netherlands Commissioner, that the Japanese government had expressed a wish to have some of their own medical students instructed in the medical and surgical sciences, and that the arrangements for this should be made as I pleased.

Before any regular scheme could be drawn out for giving such instruction, it was necessary for me to ascertain the actual state of the knowledge possessed by the scholars in regard to the above-named sciences; and to do this it seemed to me that an examination was the best way I could devise.

In the following pages I will give a view of my course of proceeding with these scholars, and describe the state in which I found the natural sciences in general and the medico-surgical in particular.

The first public instruction in medical and surgical sciences given by any European in Japan was my inaugural address, delivered on the 15th of November 1857. The nature and state of the natural sciences and their influence on civilization were described in general, and then their particular application to medicine and surgery. In doing this I explained to my new scholars the object of my mission, the importance of what was to be done, the great extent of the natural sciences, and the relations to each other in which all these branches stand, so that each branch

forms a link of the whole chain of nature; and with a desire to excite them onward in their new course, I pointed out the way in which, by indefatigable application and persevering study, all the great difficulties they might have to meet could be overcome; also I gave them the assurance that I would do all in my power to aid them in their labors and to facilitate their progress in learning.

At the close of this address the senior student, or rather the one highest in rank among them, in behalf of himself and the others thanked me, in a few hearty words, for the kindness shown in entering on this mission, and in now commencing my new task as their instructor, assuring me that they had long felt the want of greater facilities and aids in scientific pursuits, which hitherto had been much retarded by their old institutions and system of government.

The number of scholars in attendance at this introductory meeting, was fourteen,—some from the imperial court and some from the principalities. In July this year, the number of scholars in attendance on the medical and surgical course was twenty-three; while twenty others, part from the principalities and part from the imperial court, were in attendance on my lectures in Physics, Chemistry, Geology, and Mineralogy.

The next day after our first public meeting, the scholars were assembled for an examination, with a desire, as above remarked, to ascertain the actual state of their knowledge; but I soon perceived that this method could not then succeed, not only because of their ignorance of the subject-matter brought before them, but also in part on account of their dislike to what was totally unknown in Japanese usage,—an examination in public, and that too by a foreigner. Though the examination, as such, was a failure, the fact was evident enough that these scholars knew very little about rational science, and further that it would be necessary for me to begin with elementary principles.

It should be borne in mind, moreover, that it is not possible here in Japan to give a course of lectures just as we do in Europe. At first not understanding the Japanese language—which it is very difficult to learn,—recourse to an interpreter was indispensable, in order to translate what I had to say or to communicate. This was a great inconvenience; for notwithstanding there are here some very good Dutch interpreters, who translate very correctly, I must add that most of them do not understand our language

sufficiently well, or, being but poorly paid, are too indifferent to give good and just explanations of my words. For a time at the beginning of my course, I found it impossible to control these interpreters; but now my knowledge of the Japanese language, little as it may be, has several times proved sufficient to detect some bad and erroneous translations. My scholars, too,—who, when I began with them, knew very little of the Dutch language—have already, by their continued intercourse with me and the other naval officers, become much better qualified to understand what I have to communicate to them in my own tongue. Some of these can read, others can write the Dutch language, and are taught arithmetic, algebra, and mathematics by the Dutch officers. By these means they have become so well acquainted with my own language, that they can, much better than at first, comprehend the meaning of my words; a few of them, I may safely say, can now follow me and understand all that is said to them.

I decided, after due consideration, to commence my public course of instruction with Physics, Chemistry, Anatomy, Physiology and Desmology. This last named branch I taught thus early, chiefly for the amusement of the scholars, and also to furnish a little variety by giving these practical lessons in connection with what was more theoretical; for I was very soon convinced that they found special delight in the practical part of surgery; and I could easily believe also that it was well and good to stimulate their ambition.

1. PHYSICS.

The class in physics has numbered forty scholars; of these about one quarter are imperial students, or those who are from the emperor's court, while the others are from the principalities and are the subjects of the princes. The princes, who have sent scholars to attend my lessons here in Nagasaki, are those of Satsuma, Tsekusan, Fesen, Isin or Todo. These all have their principalities on the island of Kiusiu.

Three times a week, for an hour and a half from nine o'clock A.M., I have instructed the class in physics, giving explanations and pointing out in all its extent the applications of this science to the arts, manufactures and the like. In this department the ambition of the scholars is unbounded. Seldom do I see any one of them who is not all attention. What they do not at once understand in my lectures, is written down on paper and submitted

to me the following day, with a request that I will make it clear to them. From this it is easy to perceive how anxious they are to learn, and that they do not merely apply themselves when attending to their lessons with me, but that they also study a great deal while at home.

During the past eleven months, in treating of the qualities of bodies in general, I have gone through with the following subjects, namely: the *statica corporum solidorum*, *hydro* and *aero-statica*; the *dynamical*, *hydro* and *aëro-dynamical acoustics*; *caloric*, *magnetism*, *electricity*, and *galvanism*; so that now there remains only a small part of physics to be treated of by me in this course.

The progress made by these scholars thus far in their study of physics, is sufficiently extensive and quite satisfactory. Repeatedly I have had the pleasure of seeing what I had explained, orally or in written terms, reproduced in a diagram or drawing, or in a little instrument of pasteboard constructed according to physical laws. Each one of them applies himself as much as possible to acquire a knowledge of this science, and I omit no opportunity of showing them its practical importance. But the want of elementary instruction in arithmetic, algebra, and mathematics, is a serious hindrance to their progress, and renders exceedingly difficult of comprehension by them all that is based on minute and complicated calculation. Oftentimes a thing cannot be explained and demonstrated as it ought to be, in order that these scholars may reduce to practice what is taught them in theory.

Some time therefore, must elapse before they can become adepts in this branch of science. I must say, however, that they are most persevering and indefatigable in their efforts to overcome every obstacle in their way. Two especially who are to be engineers in the Royal Navy, have made great progress.

2. CHEMISTRY.

All that has been said in regard to the number, the ambition, and the application of the scholars, in the study of physics, is equally true of them in respect to this department. Whatever is taught theoretically I endeavor to illustrate by experiments, so far as it is practicable to do so,—but as yet the means are very limited, there being here no laboratories, nor apparatus, nor reagents, &c., sufficient for an extended course of experiments. From different parts of the empire, minerals and mineral waters have been already sent to me, with requests to have the same analyzed; and this I

have done, so far as my means would allow, before the scholars in their class. Thus their interest is greatly excited, and, by attempting to repeat the process of analysis, they come naturally to see themselves how accurately every thing must be performed, in chemistry, in order to bring out satisfactory results.

The Japanese are extremely fond of these lessons in chemistry, and some of my scholars have already begun to collect apparatus and have at home a box filled with reagents, reaction-tubes, little balances with weights, and a variety of small articles required for chemical experiments, and are exercising themselves in this way.

By means of physics and chemistry the people also are anxious to improve their manufactories and institutions of arts; and my pupils, so far as they are able, communicate to others what they themselves have acquired. By this method several manufacturers and merchants have already introduced improvements in their cotton fabrics. These improvements are observable in their application of both chemical ingredients and mechanical forces. The numerous questions which they have daily to propose, in regard to their instruction, give me pleasing evidence of their success, showing that they are not only indefatigable in their study of books, but also most untiring in their experiments to work out satisfactory results. In this way they find a large recompense for all their trouble.

This is the proper place to notice, in few words, the study of the natural sciences in the principality of Satsuma.

The late Prince Regent of this rich territory died about two months ago, at the age of forty-five, greatly lamented by all his subjects. He inherited from his father a love for the natural sciences, especially for the practical part. He was accustomed to carry into effect whatever he was taught in theory or in practice. All who were about him, and all his high functionaries, were required to be men of large attainments in knowledge; and none but such had much influence with him. Having secured a sufficient number of persons of this description, a manufactory of various fabrics, on a large scale, was commenced under their direction. In this great establishment that venerated prince put in requisition whatever came to his knowledge, and with the best practical results. It is situated near his capital, Kagosima, a large and beautiful city of about 500,000 inhabitants.

Last April, at the request of the prince himself, I visited his

capital, in the imperial screw-steamer *Japan*. His Highness requested this visit in order that he might meet all the officers of the Royal Dutch Navy who were then in his country. He showed us all the regulations and arrangements about his court and capital, and requested our opinion on all we saw. He wished to know what changes and improvements ought to be made, and was prompt to execute all such plans as were recommended, however great might be the labor and the expenditure of money. Some of these improvements were truly gigantic works; but never did he hesitate to expend his money, or shrink from any undertaking, for the advancement of civilization, if it could be carried out in a scientific manner.

I saw here some new fortifications of considerable extent, with formidable batteries, furnished with large guns from his own foundries: all these were constructed from the drawings found in some Dutch books. Some docks and basins for large ships and small vessels were just finished, and also a great many other interesting works. I saw a large bronze gun made in his own foundry with calibre for balls of 150 pounds' weight.

More than one hundred men were employed in the single department of glass manufactures. In it were houses for melting, blowing, and grinding.² And all sorts of glass, as well for daily use as articles of luxury, white and coloured, coarse and fine, were there to be seen; in short it was a tolerably well-working glass-house. Here the prince had applied the latest inventions to colour the glass, and I got some beautiful specimens to take with me to Desima.

He had here also a smeltry for iron ore, with all that belongs to it, and in another department a forge, where we saw the forging of some capital iron works. Besides all these we saw here a department for the fabrication of coarse porcelain, where some new inventions were reduced to practice.

Among the objects which were in hand I must mention a steam-engine. They first made a model in wood, and our Lieutenant Engineer, Mr. H. Harges, shewed them the necessary improvements. They had also in progress printing and dial-plate register telegraphs, on European models; electro-magnetic rotation instruments, &c.

Attached to this establishment was a foundry of guns. This department was very active; in it are made a great quantity of

large guns of different calibre. Lieutenant Vansragen, of the Royal Dutch Navy, told me that this part of the manufactory was arranged according to the system of the old gun-foundry of Liege.

I cannot give a more particular description of all that I saw there; I have detailed enough to show what inconceivable exertions are used by the rulers of this principedom to meet all his wants and necessities himself, and to become independent of all foreign industry.

About two thousand men, if my estimate was correct, were working in this great establishment, notwithstanding several water paddles were used wherever they could be introduced to supersede manual labor. It has been told me by a man who is very well informed about the matter that the Prince Regent, (during the minority of the young prince, who is only two years of age,) will continue the course of improvements commenced so successfully by the late prince.

Before finishing this notice, I must mention that we saw a very little paddle-wheel steamer; the late prince, we were told, ordered some of the cleverest of his subjects to construct such a steamer; and this one was made accordingly, and from drawings in the mechanical works of the Dutch Professor Verdam, without any verbal or practical assistance. The engine and the boilers were calculated for about twelve horse power, but the imperfect arrangements of the engine and boilers allowed the greater part of the steam to escape; and Mr. Harde calculated the acting power to be no more than two or three horse power. This little steamer is now under repair at Nagasaki, at the steam-factory, which is under the direction of the above-named engineer, Mr. H. Harde.

From all that has now been narrated, it is easy to perceive to what extent new inventions in manufactures and industry will be adopted, when the politics of Japan shall be changed enough to revoke totally the old system of seclusion, and when an increasing commerce and civilization shall make known all that belongs to modern science.

Two other princes of the island of Kiu-sin ought to be mentioned; those of Tsi-ku-sen and Fi-sen. The first, like the prince of Satsuma, is very powerful; he applies himself constantly to the study of natural science, especially in a theoretical way, and his knowledge must be very considerable. It was told to me that this prince does not care so much about the practical in science, as he does about the theoretical part; I cannot accept this as a fact, however,

until I have had the advantage of meeting him in his own possessions, which I hope will be the case in a few weeks; for it may be that he has factories and industrial institutions in his own principedom which are unknown to us. The system of secrecy is still so maintained, that nobody would know anything about works of this kind until there was a necessity to unveil the fact. As a proof of this, I may mention that on our passage to the factory outside of Kagosima there was not a single man who told us anything about it; all they did tell us was that the prince had an iron furnace outside the town; and this on the very same day that we were to see it; of all the rest nothing was mentioned till we got a personal view of the factory. Now it may be that the prince of Tsi-ku-sen also has some factories about which we know nothing at this moment.

The prince of Fi-sen is less powerful than the other one. I do not know his Highness well enough to judge of him correctly; but certainly he is a very proud man, and it is sure that in his territory a great many new inventions have been introduced. He has a little factory in the neighborhood of Nagasaki, and has in his possession an European-built schooner, and in a few weeks will also have a war screw-steamer, which is expected from Rotterdam.

These three princes have several times sent to me by their subjects, my scholars, questions concerning the most difficult matters; and on everything they do not well understand they receive my assistance so far as it belongs to my business and profession. They likewise consult the other Dutch officers, every one in his own department of study.

3. ANATOMY.

The Japanese have little knowledge of anatomy; and as no one of my pupils had the least idea of the science, I began by teaching them general and descriptive anatomy, so far as it was necessary for the good understanding of the different parts of the science. Three times a week I gave a half hour's lecture; but in practical demonstrations I have found very great difficulty, because the use of dead subjects is not customary among this people; at least not in presence or under the direction of a foreigner; and the officers of government fear to give their consent to it, as it conflicts with the moral and religious institutions of the Japanese people. I have spoken much about this matter and sent a memorial to the government at Yedo; which document was given to the Imperial council

by Mr. Donker Curtius during his visit to the court of Yedo a few months ago. In that memorial I dwelt extensively on this point, and acquainted them with the necessity of practical demonstration on dead bodies; but the only result I have reached is a promise that I should dissect the first condemned and executed criminal; but I think that since the time I received this promise several executions have taken place, and still I live on promise. My instruction has been given by demonstrations on engravings; but every anatomist will coincide with me in saying that this is a very unsatisfactory manner to teach anatomy.

To remedy in part this inconvenience, I ordered for the Japanese government an artificial subject of papier-maché from Paris made by the celebrated Dr. Chazour; this I expect in a few months, and by means of it I can improve a great deal the anatomical instruction: meanwhile, by speaking continually about this matter in my class, and by pointing out to my scholars its desirableness, I hope I shall at last succeed in getting proper subjects. I have already finished with the *anatomia generalis*, the *osteologia*, the *syndesmologia*, the *miologia*, the *artereologia*, and at present I demonstrate the *veneseologia*, so that the *neurologia*, *angeologia*, *splanchnologia* and the demonstrations of the senses must be treated hereafter.

Considering the inadequate manner of teaching anatomy exclusively from engravings, I must think that the progress made is satisfactory, and exceeds my expectation; so that I hope to get great results with better resources.

4. PHYSIOLOGY.

This branch of medical science was totally new to the Japanese, and most of them did not know it even by name. I followed in my lessons the beautiful physiological work of Professor Donders and Dr. Bauduin; but was obliged to pass over several complicated parts, especially about physiological chemistry. Of this part I could only mention the most simple facts, and several times I tried to explain the chemistry of the human body; but it was too difficult a study for them, and they could not understand one-fourth of it, so that their progress in it has not been so satisfactory as in the other branches. I have now for about one year been occupied five hours a week with this subject; and the general part of physiology of the human body is a little more than half finished; I have proceeded thus slowly, because in all my lessons it is a

rule not to go on to what is new until convinced that my pupils understood the preceding part. About this I can now satisfy myself better than at first, because the pupils no longer dislike to respond to my questions in public; on the contrary, those who are able to answer are very glad to show their knowledge and progress, oftentimes answering before their turn comes to speak.

5. DESMOLOGY.

As already stated, this is the branch wherein the scholars most excel; and with it I began my course, because there was an immediate demand for it in daily practice, and this want was very great; and because the scholars told me they were very anxious to learn this,—they considering it as a recreation. I first gave a short lecture in which was presented a general view of desmology; after this followed a special description of the most useful apparatus and the bandages which are of real use in practice. I omitted a great deal that is found in most treatises and manuals, but which at present is out of use, and only belonging to history. I did this because it is my conviction that the Japanese must be taught in the first years only those parts of the sciences which they absolutely want. All matters about science are still entirely unknown to them, and the part absolutely wanted is quite extended enough, and in my opinion it will be better to wait with the historical and critical parts till they are more acquainted with the bases of scientific knowledge.

All bandages and a great many appendages the scholars applied several times under my direction, and this they do simply, usefully, and elegantly; so that in this branch there is nothing more to wish; as soon as possible they brought and still bring their learning into practice. The beautiful and useful gypse bandage for fractures invented by *Matthysen* was applied by one of my pupils in a case of fracture of the tibia and fibula, and this was done four days after I had shown it in the class. Since that it has been applied several times, always with the greatest success, and this has given great *éclat* to our surgery among the Japanese. The desmology is now finished.

GENERAL REMARKS.

There exists a great difference in rank between the medical men in Japan; a few of them belong to the highest class of society; they are Imperial life surgeons. One of them is at present at Nagasaki, sent from Yedo, and one of my scholars. He is designed

to be the chief of the medical service in Japan, after finishing his studies here. Certainly the choice could not be better. To a clever judgment he joins an unlimited ambition for all science, he has a strong and decisive character, and he is always ready to sacrifice his comfort and his life to alleviate the sufferings of human-kind. It is by his influence that several things have already been changed and improved, and seldom do I recommend to him anything that is not very soon executed, at least so much as can be done consistently with the Japanese regulations and laws.

Besides this first class, there is also a second class of Imperial doctors, but not so high in rank; they are not privileged to treat the Emperor and his family, and the court at Yedo. The third class is formed of territorial-government medical men, and the fourth class contains all those who are to practice privately, without any government commission. Their influence is proportional to their rank. The highest government functionaries have generally their own life physicians attached to their households, and these gentlemen also have a great influence.

The age of the scholars in general is from 25 to 35 years; a few are more than this. Most of them are practising already in Nagasaki; all are Imperial or Principality subjects: the last are generally the most clever. A great inconvenience to all scientific development in Japan is that the trade in books is carried on, up to the present time, absolutely by the Japanese treasury (a government institution at Nagasaki), and this corporation sell the books at inconceivably high prices; so that only the richest Japanese can buy them.

Scientific works are sold here for about tenfold their real worth. The less fortunate scholars take the trouble (in order to save money) to copy some of my books, and this is almost a useless expenditure of time. When free trade shall have changed this, it will be a great advantage to science and art.

What is the real position of natural philosophy and scientific study in the north part of Japan I cannot say with certainty and accuracy. I must suppose by the questions that are addressed to me that physics, chemistry, mineralogy, and botany find very ambitious students there, and that geology interests them a great deal. I cannot at present mention any thing else about the northern part of Japan.

ARTICLE VII.

MEMORANDUM ON THE PRESENT STATE OF SOME
OF THE MAGNETIC ELEMENTS IN CHINA
AND PLACES ADJACENT.

BY CAPT. C. F. A. SHADWELL, C.B., H. M. S. "HIGHERFLYER."

Read before the Society, January 18th 1859.

It may be useful to place on record the present condition of some of the magnetic elements in China and places adjacent.

The observations now to be recorded, consist of a few determinations of the Variation and several of the Dip or Inclination of the magnetic needle, taken between April 1857 and December 1858, at various stations between Anjier in the Straits of Sunda and Shanghai.

The observations of the variation were made with an azimuth compass of superior construction, such as are now furnished to each of H. M. ships. The true azimuth of the terrestrial points or objects observed, for comparison with the magnetic bearing by the compass, being in all cases determined astronomically.

The dip observations were made with a six inch dip circle, by Robinson, of superior construction, every precaution being taken to eliminate the errors of observation and the effect of instrumental imperfection, by reversing the poles and taking the readings in all possible positions, with reference to the face of the needle and face of the instrument.

The resulting dip by each needle being the mean of 48 readings, and the concluded dip the mean of the results by two needles.

It will be most convenient to arrange the observations in a tabular form.

By a comparison of these observations with those made by the late Sir Everard Home, then commanding H. M. S. *North Star*, in 1842-43, communicated to me by that gentleman, it would appear that at Singapore the south dip of the needle has increased 38 minutes in 15 years.

DATE	PLACE	STATION	LAT.	LONG.	VARIATION	DIP	REMARKS
1857 Apr. 17	Anjier,	Near the landing place,	South 6° 3'	East 105° 57'	1° 53' E.	27° 15' S.	
Apr. 25	Singapore,	Battery Point,	North 1° 17'	103° 50'	2° 8' E.	13° 21' S.	{ In 1842-43. The mean value of the Dip by Sir Everard Home's observations was 12° 43' S.
May 26	Hongkong,	Wellington Battery, ...	22° 16'	114° 10'	0° 14' E.	31° 26' N.	
1858 Jan. 19	Canton,	{ A little eminence East of the North Gate,	23° 8'	113° 15'	...	32° 35' N.	
Feb. 3	{ Hamilton Creek, Canton River,	On the Bund, West side of the Creek, }	23° 2'	113° 15'	0° 12' E.	32° 23' N.	{ In 1842-43. The mean of Sir E. Home's observations gave the Dip 30° 45' N. In June 1843. The Dip by Sir E. Home's observations was 44° 45' N.
Feb. 22	Hongkong,	Wellington Battery, ...	22° 16'	114° 10'	...	31° 25' N.	
June 10	Shanghai,	On the Race Course, ..	31° 15'	121° 29'	2° 29' W.	45° 18' N.	
Sept. 23	The Rugged Islands, 4	{ On West side of Tripont Island, On the Rocks West side of Kintang, }	30° 35'	121° 58'	...	44° 11' N.	{ Sir E. Home made the Dip in 1842, 44° 33' N.
Sept. 29	{ Ta-outsee Harbour Kintang,	{ South of Village, In the Foreign Set- tlement near Capt. Patriidge's House, }	30° 3'	121° 50'	...	43° 0' N.	
Oct. 4	Ningpo,	Fort A near the Marks, At the Consular Flag staff,	29° 52'	121° 32'	...	43° 3' N.	
Nov. 26	Woosung,		31° 24'	121° 30'	...	45° 2' N.	
Dec. 16	Shanghai,		31° 15'	121° 30'	2° 32' W.	45° 19' N.	

At Hongkong the north dip has similarly increased about 40 minutes in the same period, while at Shanghai and Woosung the increase amounts to about half a degree.

All these changes can be accounted for on the supposition of a gradual increase in the amount of the vertical component of the magnetic intensity at these places.

At Woosung, lying 10 miles nearly due north of Shanghai, the dip is $45^{\circ} 2'$, being 17 minutes less than at Shanghai, an anomaly probably caused by some local disturbance or irregularity.

A discordance of the same kind is perceptible by a comparison of the observations at Kintang and Ningpo.



NOTE.

It should be here stated that, on the reading of his Paper before the Society, Captain Shadwell took occasion to give *viva voce* some brief observations on Terrestrial Magnetism generally, specifying the leading objects of magnetic research as he traced the history and progress of the science; he also gave a popular description of the instruments employed and the course of observations recently followed at the various magnetic observatories established for the purpose of investigating the phenomena of Magnetism and then closed his very interesting address with the Memorandum given above. It is to be hoped that Captain Shadwell will continue his researches in this much neglected branch of science.—*Editorial Committee.*

ARTICLE VIII.

NOTES ON SOME NEW SPECIES OF BIRDS FOUND
ON THE ISLAND OF FORMOSA.

By R. SWINHOE, Esq.

(Supplementary to Article I, page 145.)

ORDER II.—PASSERES. TRIBE III.—DENTIROSTRES. FAMILY
I.—LUSCINIDÆ. SUBFAMILY I.—MALURINÆ.

Two species of birds in this subfamily, not coming under any genus described by G. R. Gray in his *Genera of Birds*, for which I propose a new genus under the term *Calamanthella*, may be thus defined:—Bill shorter than the head, broad at the base, but compressed towards the tip; culmen gradually arched towards the tip; gonys long and ascending; nostrils placed longitudinally in a basal membranous groove; gape furnished with short weak bristles. Wings moderate; the first quill abruptly short, the second shorter than the third, which with the fourth and fifth are longest in the wing. Tail moderate, or short, and graduated. Tarsi much longer than the middle toe, and covered with indistinct scales; toes long with the outer toe shorter than the inner, and united at the base to the middle one; the hind toe long and armed with a long curved claw.

These birds differ from the genera *Prinia* (Horsf.) and *Calamanthus* (Gould), to which they are nearly allied, by their active habits, being constantly on the wing, flying high in the air uttering their singular notes. The two distinct species which I procured in Formosa, I have named *Tinnabulans* and *Volitans* respectively. The former of these is very common in the plains and on the hills of the N.W. side of Formosa, and I have since found it very numerous among the rush-covered tumuli in Shanghai. The latter was abundant in the E. and N.E. of Formosa. I will now venture to give a few words on the general description of the two species, as also on their habits as observed by myself.

Calamanthella tinnabulans. Bill along culmen $\frac{1}{3}$ inch; bill to gape $\frac{7}{12}$; tarsus $\frac{2}{3}$; onyx $\frac{1}{2}$; middle toe $\frac{7}{12}$; wing $1\frac{1}{2}$; tail $1\frac{7}{12}$. Total length $4\frac{1}{2}$ inches.

Bill yellowish, wood-brown towards the tip and along the culmen. Legs ochreous yellow. Irides orange yellow. Upper parts yellowish brown varied with sienna red; the feathers on the head, back, wing-coverts, secondaries, and tail-coverts, dark-brown with yellowish brown margins. The wing-feathers hair-brown broadly margined with pale yellowish brown. Tail consisting of 12 feathers almost equally graduated; the uropygials brown-margined paler; the other 10 feathers marked with dark brown and reddish sienna, each feather being deeply tipped with white. Eye-streak, throat and under parts white tinged with sienna or straw yellow, deeper on the sides, and approaching red on the flanks.

Habits. These little sprightly birds abound in Hongsan and the N.W. coast of Formosa, among the long grass and rushes, hopping with upright tails from one blade to another, so light, so airy in their build, that one often mistakes them for locusts, with which insects their haunts abound. Suddenly springing into the air, they rise to a little height uttering the notes *te-te-te*, then drop with a *ting-ting-ting*; and when many are singing over a plain, the effect may well be compared to the "drowsy tinkling" that "hulls the distant fold."

In Shanghai I noted,—“The Formosan Tinkler is also here, and continues to sing, as he flies along in the air, his singular notes; now flying downwards with a curve as if he would settle, then sweeping up again and hovering, all the while uttering his notes. At last he makes up his mind to descend, and down he comes and perches on some stalk of maize or other plant, and carefully preens, and rests himself; a few minutes more and he is again on the wing.”

The Chinese settlers in Formosa call this bird the *Mangtang*; the same name that in Amoy is applied to the Tailor-bird (*Orthotomus* sp.) and most small birds of that family.

Calamanthella volitans. Bill along culmen, over $\frac{1}{2}$ inch; bill to gape $\frac{1}{2}$; tarsus $\frac{2}{3}$; onyx $\frac{5}{12}$; middle toe $\frac{1}{2}$; wing $1\frac{2}{3}$; tail $1\frac{1}{2}$. Total length $3\frac{1}{4}$ inches.

Bill pale wood-brown. Legs straw color. Irides orange yellow. Head, nape, and all the under parts pale sienna yellow, more or less ochreous. Back and wings hair brown, the feathers margined with light yellowish brown. Rump light sienna brown. Tail dark hair-brown; the feathers graduated, but broad at their tips giving the tail the appearance of an isosceles triangle.

Habits. This species, which is even smaller than the foregoing, is found in numbers among the grassy hills on the N.E. side of Formosa. It soars much higher than its congener, and flies long distances uttering notes similar to "chee-chee-cheup-cheup;" and often when the bird itself is not visible, lost in the expanse above, you are made aware that it is somewhere overhead, by the fall of its notes on your ear.

GENUS,—PRINIA. (Horsf.)

Prinia striata. (n. sp.) Bill along culmen $\frac{1}{10}$ inch; bill to gape $\frac{6}{10}$; Tarsus $\frac{9}{10}$; wing $2\frac{1}{2}$; tail $4\frac{7}{10}$. Total length 8 inches.

Bill black. Legs ochreous yellow. Irides orange brown. Upper parts a rich brown, each feather having darker centres and whitish side-margins, giving a striped appearance. Wings yellowish hair-brown; the feathers broadly margined with yellowish brown. Tail light brown; the shafts dark, and the tips yellowish. Under parts of a dingy yellowish tinge spotted on the cheeks and head, and striped on the sides of the neck. Thighs reddish brown.

This bird was procured on the N.W. side at Hongshan, some little distance inland. It is much larger than any *Prinia* I have yet met with in China. In its accustomed haunts, it may be seen mounted on the top of some tall rush-stalk, singing a monotonous ditty of a few notes, somewhat resembling those of the Bunting Lark, often repeated.

FAMILY,—TURDIDÆ. SUBFAMILY,—FORMICARINÆ. GENUS.—HYDROBATA (Vieill) OR DIPPER.

There appear to be several Dippers, more or less similar, from totally different parts of the world. Such are the *H. unicolor* (Pr. Buon.) from America, the *H. Pallisir* (Temm) from Europe, and the *H. Asiatica* (Swains). To the last species I should be inclined to assign the present bird, but there being some little doubt about it, I propose describing it under the term *Hydrobata marila*:—Length in toto $8\frac{1}{2}$ inches; wing from flexure $3\frac{1}{4}$.

Bill and legs indigo blue; the latter thick and rough-soled, with strong claws. Irides deep brown. The whole of the body umber-brown, blacker on the under parts, and tinged with raw sienna on the upper. A line of white nearly encircles the eye, and a few indistinct whitish spots occur on the wing-coverts.

The specimen from which the above description is taken was a female, shot over one of the waterfalls on our inland expedition to the sulphur mines. She was seen to take one plunge, and was sitting with tail erect on a rock in the gliding stream.

SUBFAMILY III.—TIMALINÆ, OR BABBLERS. GENUS,—GARRULAX (Lesl).

Garrulax Taewanus. (n. sp.) The song-thrush or *Hwa-mei* (G. Sinensis), remarkable for a white eye-streak, so common on the hills in the vicinity of Foochow, is replaced on the Formosan hills by a dingier species, which is destitute of the eyebrowed distinction, and may be thus described:—Male: length $9\frac{3}{4}$ inches; wing $3\frac{3}{4}$; tail $4\frac{1}{4}$. Female: length 9 inches; wing $3\frac{7}{8}$; tail $3\frac{3}{4}$. Bill of both along culmen $\frac{8}{10}$; bill to gape $\frac{9}{10}$; tarsus $1\frac{3}{10}$.

Bill horn-yellow. Legs ochreous. Irides grey. Top of the head and under parts buff ochre; the feathers of the head, and some few on the sides of the neck and breast, being streaked with black. Belly smoke grey. Upper parts dingy olive brown, brighter on the wings, and transversely barred on the tail with indistinct bars.

The song of this species is very fine, but, like all this genus of babbling birds, it is very rarely that it will sing a set song of many minutes duration. While rambling over the hills, I have been startled by a burst of delicious melody from some neighboring bush, and on approaching nearer, have spied this bird flit noiselessly into an adjoining cover, where with several of his comrades he would keep up a constant chatter until I removed some distance off. The male and female are very much similar in dress.

GENUS,—POMATORRHINUS (Horsf).

This has been noted as a genus of unmusical Thrushes, whereas the species abounding in Formosa is remarkable for its sweet song, and very different from the small Wren-like species procured on the Pihling hills near Foochow.

Pomathorhinus musicus. (n. sp.) Male: length $7\frac{4}{10}$ inches. Female: length $7\frac{8}{10}$ inches. Wing $3\frac{1}{2}$ inches; tail $3\frac{1}{2}$; bill along culmen $\frac{8}{10}$; bill to gape 1; tarsus $1\frac{1}{2}$; onyx $\frac{2}{10}$; middle toe $1\frac{1}{10}$.

Bill black on the upper mandible, yellowish on the lower. Legs deep indigo blue. Top of the head and cheeks blackish green.

Space between the bill and eyes deep black. A streak over the eyes; throat and breast white, the latter blotched with black. Nape, back of the neck, and upper part of the belly, fine chestnut red. The rest of the plumage olive green; in the males deeply tinged with chesnut, especially on the wings.

These Thrushes enliven the copse-covered hills with their song. They may be seen about the branches of some tree that lifts itself higher than the surrounding brushwood, hopping from twig to twig with rounded backs. On alarm they drop with amazing velocity into the scrub beneath, and there chatter and gabble in an undertone, as if telling one another what they had seen and what a narrow escape they had just had. From these retreats the male loves to pour its melody into the delighted ear of the passerby, and the nearer the approach the louder sound the notes, until the bird thinking the propinquity of the stranger too great an intrusion, quietly slips out at the back of the bush, and betakes himself to some other spot, and while you are waiting anxiously to get a look at him, you hear him exerting his musical powers some distance off.

ORDER III.—SCANSORES. FAMILY IV.—CUCULIDÆ. SUB-FAMILY III.—COCYZINÆ. (Ground Cuckoos.) GENUS,—CENTROPUS (Illig.).

Centropus dimidiatus. (Blyth?) Length $12\frac{3}{4}$ inches; wing $5\frac{9}{10}$; tail 7; bill along culmen 1; bill to gape $1\frac{1}{10}$; tarsus $1\frac{1}{10}$.

The feathers of the head, neck; and wing-coverts have stiff acuminate shafts. Bill and legs black. Irides blood red. Head, neck, under parts, and tail, greenish black. Back and wings light chestnut-brown; the shafts of most of the feathers, especially on the wing-coverts, being yellowish white. The quills browner towards their tips. Feathers of the rump very soft, and transversely barred with brown and dingy yellow.

On first meeting with this bird on the N.E. coast of Formosa among the hills of Saw-o and Kelung, I took it to be the same species that is so abundant in the valley of Foochow, (*Centropus Philippensis* Cuv. or Crow Pheasant of the foreign residents), remarkable for its notes "hoo-hoo-hoo," which have been compared to the noise produced by the stops of an organ suddenly drawn out. But on procuring a male bird, from which the above description is

taken, I found it to be scarcely more than one-half the size of the other species and differing from it also in color. Besides, the notes are different, the "hoo-hoo-hoo" being followed by the dissyllable "ka-took" thrice repeated, the sounds produced somewhat resembling the distant blows of a woodman's axe, as it falls on the trunk of some devoted patriarch of the forest. On looking up the face of a hill you might often see this small *Larkheel* sitting conspicuous on the top of some bush and bending forward its head and neck as it gave utterance to its strange notes.

To the above I may also add another bird, which, though not a new species, I have not as yet found on the coast of China. Such is the Philippine Noddy.

ORDER VIII.—ANSERES. FAMILY V.—LARIDÆ. SUB-FAMILY III.—STERNIDÆ (Terns). GENUS,—*ANŌUS* (Leach).

Anōus pileatus. (Scop.) Philippine Noddy. Male: length $14\frac{1}{2}$ inches; wing $10\frac{3}{10}$; tail $6\frac{1}{2}$. Female: length $14\frac{1}{2}$ inches; wing $10\frac{8}{10}$; tail $6\frac{3}{10}$; bill along the culmen $1\frac{1}{2}$; bill to gape $2\frac{1}{3}$; tibia bare about $\frac{1}{2}$ inch above the knee; tarsus $\frac{9}{10}$; middle toe $1\frac{6}{10}$; onyx $\frac{4}{10}$.

Bill and legs black. Iris dark brown. Forehead and top of the head white, gradually changing as it passes to the occiput into smoke grey, which again darkens into brown. Space between the bill and eyes, and chin, dark black. A circle of white round the eyes. The rest of the plumage brownish-black, of a deeper color on the quills.

A male of this species flew so close past the ship's gig in *Saw-o* harbor that a seaman knocked it down with his hand, and at *Kelung* a female was brought alive to us by some fishermen for sale. Far away from land I have often watched these *Black Terns* following at some distance in the wake of the ship, darting backwards and forwards in numbers across the broad trail left in the water by the steamer speeding onward on her course, and I suppose preying upon the numerous small fish that, startled at the agitated waters, commit themselves for a while to the treacherous air, distrusting the state of their natural element.

ARTICLE IX.

SAILING DIRECTIONS FOR THE YANG-TSZE KIANG,
FROM WOOSUNG TO HANKOW.

BY CAPTAIN JOHN WARD, R.N., H. M. S. "ACTÆON."

UNTIL resurveyed, buoyed, and local pilots established, this River above the Red Buoy off Woosung must be navigated with extreme caution,—the charts at present in use affording a very imperfect idea of the hydrography of the south branch of the river. The constant accumulation of a very fine kind of sand having created banks, where, at the period of the last survey by Captain Collinson and others in 1842, deep water existed, shoals, which then were at all times covered, are now, from the constant supply of alluvial deposits, at low water in many places exposed to view.

The Blonde Shoal, which at that period had $2\frac{1}{2}$ fathoms on it, and a knoll marked to the S.S.W. Blonde Shoal.

of it, appear to have formed a junction, and the bank made by them shows at low water in many places.

In November 1858 the ships forming the escort of His Excellency the Earl of Elgin, *Retribution*, *Furious*, *Cruiser*, *Dove* and *Lee*, passed to the southward of this bank; but at low water not more than 15 or 16 feet will be found in the channel: the *Retribution*, drawing nearly 20 feet, had to wait till half flood, and then had but six inches to spare.

This channel was chosen in preference to the one on the northern side merely from its having been examined and partially buoyed,—want of time preventing the examination of the other, which will be found to be the deepest, straightest, and most desirable channel of the two. The course from Red Buoy to entrance of southern Blonde Channel is N.W. South Blonde Channel.
 $\frac{1}{4}$ W. about seven miles; when that distance has been run, it will be prudent, if drawing not more than 15 feet, to approach the land, (a large and rather conspicuous clump of trees bearing south) touching with the lead in from $3\frac{1}{2}$ to 4 fathoms on the edge of the bank off the shore of the main land,—it being less abrupt and

affording more warning than the edges of the Blonde Shoal, or rather Bank.

As the monotonous embankments of this part of the River afford no landmarks that could possibly be recognized from description by a stranger, their height hiding the houses &c. in the rear, the lead must be mainly depended on. The course through the channel is about N.W.

A quick eye may possibly detect two small joss poles, which occasionally may be seen through the tops of the trees over the embankments; if seen, when brought to bear west, a push should be made to the northward, clearing the north end of the Shoal; should the joss poles not be seen, a boat should be used to sound and mark the N.N.W. end of the Blonde Bank; clear of which, the channel should be crossed steering N.N.E., on which course from 8 to 10 fathoms will be obtained, until the bank extending from Tsung-ming is approached; and when in from 5 to 6 fathoms, alter course so as to keep on the edge of the bank in that depth, the course being about N.N.W. $\frac{1}{2}$ W.; by this means the

"Dove's Nest," a very dangerous collection of

Dove's Nest. banks, will be avoided. The *Cruiser* and *Dove* both grounded on the 7th November 1858, and the *Furious* on the 9th, on these Shoals; from which the following bearings were obtained—

Village on Harvey Point,	N. 9°	E.
Single tree,	N. 70	W.
Great bush,	N. 68 $\frac{1}{2}$	W.
Left extreme Mason Island,	N. 8 $\frac{1}{2}$	W.

The captain of a steamer called the *Confucius*, in the pay of the Imperial Government, reports that there is a good channel close along the main shore, but he acknowledged that his steamer, drawing about 8 feet water, often grounded in it; and therefore it was not considered desirable to try that channel until time permitted an examination of it to be made.

Harvey Point. Harvey Point may be passed within $\frac{3}{4}$ of a mile,

and when a conspicuous clump on it is brought to bear S.E. by E. $\frac{1}{2}$ E., steer N.W. by W. $\frac{1}{2}$ W.; from 6 to 7 $\frac{1}{2}$ fathoms may be expected on this course, until the single tree, marked on the chart and conspicuous, bears S. 30° W.; then steer W. by N. $\frac{1}{2}$ N., making due allowance for the tides which here run N.W. and S.E.

Plover Point may be known by its having a village on it and a small fort or breastwork. A number of junks are generally to be found at anchor in a river or creek opening at Plover Point. When the fort bears S.W. the dangerous banks and shoals known as the "Lang-shan Crossing" may be said to commence.

The squadron, in November 1858, navigating by the chart at present in use, passed along shore and was stopped abreast off Foo-shan by a long sandspit, effectually barring the passage; and for three days the two gun-boats *Dove* and *Lee* and the boats of the squadron were sedulously engaged in searching for a passage through, until at length the tail of it was rounded by the *Dove*, but as low down as Plover Point; and the squadron had to return thirteen miles.

The fort on Plover Point, which is low and will require a good glass to make it out, must not be brought to the southward of S.W., until Foo-shan Hill, if seen, bears W.; then steer for the hill. If the weather is clear, Foo-shan will be made in the shape of a hummock crowned with trees and a few white houses. A small fort like a Martello-tower, situated on the slope, may also possibly be seen.

If unable to get a bearing of Foo-shan, when Lang-shan Pagoda, a very conspicuous object situated on the summit of the highest of three hills, bears N. 31° W. (N.W. by N. nearly) and a white house on the left bank of the river, if distinguishable, N. 27° E., steer W. until Lang-shan Pagoda bears N. having from 7 to 9 fathoms; then haul more to the northward, W. by N. $\frac{1}{4}$ N., until Lang-shan Pagoda bears N. 13° E. (N. by E. $\frac{1}{4}$ E.), when the course becomes N.W. $\frac{1}{2}$ N., until Lang-shan Pagoda bears N. 72° E. (E. by N.), when again the course may be altered so as to approach close to the left bank of the river, which may now be for some distance kept on board.

Kea-shan Point, which when seen from the S.E. is wedge-shaped, the thick end—90 feet high—being outwards and very conspicuous, should not be approached, in passing, nearer than from $2\frac{1}{2}$ to 3 miles.

In the vicinity of Kea-shan Point very great alterations have taken place since the survey of 1842. An entirely new island, cultivated and inhabited, has been formed; the small islands marked in the chart appear to have formed a junction; and exten-

sive banks, occasionally showing, have been called into existence, and are constantly being added to, by the earthy matter brought down by the River—doubtless eventually, perhaps shortly, to become islands themselves, and add their quota of rice, &c., to the support of the teeming population of China, while at the same time the River appears to be gouging out the land on the opposite (or *left*) bank.*

After passing Kea-shan Point, the most anxious and most dangerous part of the navigation of the Yang-tsze Kiang may fairly be said to have been accomplished; in no other portion of the River do we find the same rapid alterations in the bed, especially in the vicinity of Foo-shan and Lang-shan, where the strong tides appear to be actively and constantly engaged in removing some banks, while others are being formed. Until a good local pilotage has been established, vessels, especially sailing vessels, proceeding up would act wisely by always having a boat ahead shewing the soundings; the time lost in this slow mode of progression is not to be compared with the loss of time consumed, exclusive of damage, in heaving a ship off a sand bank.

After passing the islets formed and in course of formation, abreast of Kea-shan, the River becomes pretty clear; a mid-channel course may be safely pursued, steering for the high land about

Hwang-shan.

Hwang-shan, which from Kea-shan looks like an island in the centre of the River, the lead giving no bottom at 8 fathoms. Anchorage, if required, can be had in Hwang-shan Bay, but the water is deep; the squadron, in November 1858, anchored there in 12 fathoms close in shore; the hills in the vicinity range from 252 to 300 feet high. A rise and fall of tide of from 4 to 6 feet takes place here. The River narrows to a mile between Hwang-shan Bay and Kiang-yin, but immediately afterwards becomes wider. A mid-channel course is still to be steered, following the trend of the River until approaching Starling Island, when the left bank must be neared and may be kept pretty close (about $\frac{1}{4}$ mile), passing to the eastward of the Island.

* The terms, north, east, south, and west banks, in river navigation, should never be used, as they may occasionally lead to confusion,—the North sometimes becoming South, East, or West; "*Right*" and "*Left*" banks can never be mistaken, the reader supposing himself to be standing with his back to the source of the river, and his face to its mouth, in fact looking the way of the stream.

A New Bank, bearing from Kea-shan Pagoda S. 73° E., is forming in the River, and will doubtless before long become an island; it lies close to the left bank, with at present a boat channel inside of it; it shows at low water. The old joss house marked in the chart is not to be seen; the left bank should still be kept on board, passing to the eastward of a long low island, which appears to have grown considerably since 1842.

New Bank.

No other banks appear to be forming until abreast of the Island of Chang-sang Chow, where from the right bank a dangerous shoal stretches nearly half-way across the River; to avoid which the Island of Seaou-sha should be kept on board.

Chang-sang Chow.

The banks of the River are excessively monotonous between Kiang-yin and Keun-shan, the left perfectly flat; the only rising ground through the whole extent being a hill called Koo-shan, on which are some houses.

The remarks of Mr. H.M. English, Master of H.M. Sloop *Styx*, with regard to the termination of the Flood Stream 10 or 15 miles below Kea-shan Point, must be supposed to refer merely to that period of the year, June and July, at which he visited it. From the fact of the River then having a large body of water in it, the downward current would naturally have greater weight and check the Flood Stream; but in November 1858 the level of the River was lower, and the influence of the Flood was felt much higher; and on the 29th of December the level of the water being still lower, the Flood Stream was sensibly felt as high as Nanking. The *Retribution*, *Dove*, and *Lee*, were actually compelled on that day to move their engines to enable them to preserve a position off the forts, during the time some negotiations were being proceeded with on shore.

Flood Stream.

In passing Silver Island the southern channel should be taken, being careful to keep a *mid-channel* course, to avoid a danger, "Furious Rock" (*vide* plan), about $\frac{1}{3}$ of the passage over from Silver Island, having 14 feet on it, and a rock terminating some broken ground which extends from the right bank. A quick helm will be required in passing through, to avoid being at the mercy of the whirling eddies caused by the check these rocks oppose to the stream.

Silver Island is evidently destined to form a junction with the small Island called Ta-sha; a spit now

Silver Island.

runs out from the low flat tongue of ground, which has accumulated to the N.E. of the high ground of Silver Island towards Ta-sha; while another appears to be working its way from Ta-sha towards Silver Island; and the channel between the two is clearly filling up, as the chart shews 12 fathoms; but no such depth is to be found now, and the channel has become so narrowed that it was not deemed prudent to take H. M. S. *Retribution* through in November 1858.

After clearing Silver Island the left bank of the River should be gradually approached; and, passing Chin-keang Foo, kept close on board, so as to avoid a rock said to have 10 feet on it, which lies nearly in the centre of the River to the N.W. of Golden Island, in the vicinity of which Island several rocks appear to exist. Golden Island is now connected with the mainland by a low isthmus well covered with grass.

Golden Island.

Both channels, north and south of Pih-sin Chow, appear to be safe and clear; the south one was taken by the squadron in November; but at the same time a Chinese Imperial steamer was observed passing through the north channel; it is very probable, therefore, that it is navigable; the Chinese steamer drew 9 or 10 feet. In proceeding through the south channel the Island Pih-sin Chow should be kept on board; and after passing it, a mid-channel course steered until abreast of

Pih-sin Chow.

Yang-tsze-ke, when the left bank should be closed in order to avoid an outlying rock said to exist near the right bank, after passing which a mid-channel course may be again steered, giving a mud-flat at N.W. side of Tsaou-sha Island a berth: this flat has formed on the spot where the shallow water is shewn in the chart.

Yang-tsze-ke.

After passing this flat the River appears to be perfectly clear.

Theodolite Point and the Nanking Forts may be approached within pistol shot. The Forts (two)

Nanking.

on the right bank of the River are erected on a detached tongue of land in front of the city walls: twelve 24-pounders, mounted on solid wooden carriages, were on the mud bank in front of the wall of the lower Fort, not on it, consequently no shelter is afforded the gunners. After detecting the exposed position of their guns it was an easy matter, on the morning of the 21st November, to prevent them with rifles from loading or working their artillery.

The upper Fort on the right bank, mounts three 24-pounders

and six 6-pounders, in the same exposed position. Some gingalls and light guns are on Theodolite Point, where armed junks were also stationed.

A Fort on the left bank mounts a few light guns and gingalls. Vessels forcing a passage should keep close in to the right bank, and steady rifle practice will effectually keep down any fire, especially as the elevation of their guns is great and they never alter it.

After passing Nanking, a mid-channel course may be steered, the hill marked in the chart on left bank of the River opposite San-shan does not exist. At this point the survey of 1842 terminates.

Elgin Reach appears to be clear; a mid-channel course may be taken, until the centre of some rising ground about 150 feet high and 3 miles S.W. of a remarkable rebel stronghold on left bank of River, bears west, when the right bank should be closed, to avoid a spit running to the N.E. of what appears to be a small island.

Elgin Reach.

The squadron in November 1858 took the channel east of Wade Island, and generally found no bottom at 8 fathoms. Some rebels in three small stone Forts, at a village called Tsai-shih-ke, had the temerity to fire a few matchlocks and gingalls at the squadron on the 21st November; a couple of well-directed shot from the *Retribution* knocked the forts down, and they were still in ruins when the squadron returned at the end of December.

Wade Island.

The channel west of Wade Island is said to have been used by the U. S. A. S. *Susquehanna*, and to have had 8 fathoms in it; both channels may therefore be said to be navigable. The western one, *Susquehanna's*, if clear, is most decidedly preferable, as by using it, some shallow ground $3\frac{1}{2}$ miles W.S.W. of Taiping Pagoda and abreast of the small village of Tang-too is avoided.

Should the eastern channel be used, care must be taken not to approach the right bank of the River near Tang-too, passing close to the S.W. end of the small island south of Wade Island, as a dangerous shoal stretches out from the village before mentioned; by keeping Taiping Pagoda nearly touching the south side of the small island not less than 17 feet was obtained.

When the River, as in January, may be considered to be at its lowest level, close the left bank to within half a mile, keeping Taiping Pagoda as before, and steer a mid-channel course passing

The Pillars.

between the East and West Pillars, two rugged eminences strongly fortified; one, the eastern, is supposed to contain the treasures of the Taiping. From the Pillars the course up the River is southerly.

Point Morton may be kept close aboard passing to the eastward of a small flat island.

A rock, just shewing in November but dry 6 feet in December, rises on the right bank of the River 3 miles south of Point Morton, and about a cable's length from the shore, and would be covered earlier in the autumn.

Woo-hoo.

Off the rebel city of Woo-hoo, a shoal lies about a cable's length from the right bank, and dries in December. A mid-channel course clears it, and may be steered with safety through the Woo-hoo Reach, gradually closing the right bank on approaching a range of hills (700 feet high), opposite which are a small island and some mud patches at about $\frac{1}{2}$ cable's length from the shore of the left bank. These mud banks were covered in November, but dry for nearly two miles in December.

Barker Island.

After passing them a mid-channel course may be again followed, passing to the southward of Barker Island, from the N.E. point of which Kieu-hien Pagoda may be seen. As the difficulties in the navigation appeared to be increasing, it was determined to leave the *Retribution* at Kieu-hien, where it was understood liberal supplies were to be procured. Good anchorage may be obtained at Kieu-hien in from 5 to 8 fathoms. Off the town, which lies on the right bank of the River about 80 miles above Nanking, some conspicuous hills ranging from 1,500 to 2,000 feet high, lie to the southward of it some three or four miles distant. The left bank of the River is a perfect flat, some mud banks are accumulating about the S.W. end of Barker Island; a mid-channel course should be steered, the least water found being $3\frac{3}{4}$ fathoms. This part of the River should be approached with caution. The channel north of Barker Island is supposed to be clear, and if so would avoid the shoal water before mentioned.

Osborn Reach.

Osborn Reach is clear; after passing Teih-keang, keep close to the right bank until clear of Osborn Reach, and approaching a large village, name unknown, lying on the left bank of the River, which may now be crossed, keeping that bank on board until after passing the large village before mentioned.

The course now becomes south; through the Wild Boar Reach a mid-channel course may be steered. Wild Boar Reach. Some high land may here be seen on the left bank of the River, which is the first rising ground to be met with on that bank after passing through the Pillar hills, a distance of more than 50 miles. Keep the left bank in view to prevent being enticed into a wide channel opening on the right bank of the River, and which at first has all the appearance of being the main stream; it lies north of a walled village on the left bank of the River, at a distance of about 2 miles. On nearing the walled village close the left bank slightly, to avoid some shallow ground lying abreast of it off the right bank; after passing which Wild Boar Reach is perfectly clear, the course still southerly. After passing a ruined temple which stands on a very conspicuous bluff about 100 feet high, edge over to the left bank of the River to avoid some shallow ground on the right bank, where the channel takes a more westerly course (W.S.W.) for about 23 miles. Some shallows lie off the left bank of the River east of Fitzroy Island. Fitzroy Island, to avoid which keep the right bank aboard until Chi-chau Pagoda bears south, and then edge over towards the east part of Fitzroy Island, passing through the channel north of that Island, keeping pretty close to the left bank, as some mud flats lie on the north side of the island.

After passing Fitzroy Island the channel is again clear, and a mid-channel course may be steered, about S.W. by W.

The country about this part of the River is hilly. About 8 miles S.W. of Fitzroy Island lies, about 300 yards from the left bank, a very dangerous shoal, dry in December, but covered a month earlier; to avoid it, pass within a cable's length of a conspicuous rocky islet about 30 feet high, which is situated nearly in the centre of the River and cannot be mistaken. From this spot until past Liang-kiang-ke or Hen Point Liang-kiang-ke. numerous rocks lie in the bed of the River. From Liang-kiang-ke a very dangerous cluster of rocks extends for more than half-way across the River; in November the outer rock was marked by a small bush sunk on it; it was however dry in December. To clear these rocks the left bank of the River must be kept on board, the course becoming again southerly for five miles, when a westerly course is to be steered through Nganking Reach.

Nganking.

Approaching Nganking the left bank of the River must be kept, passing *close* under the walls of the city to avoid extensive shoals and mud flats which exist on the other bank.

Nganking was, in November, in the hands of the rebels, but closely besieged by the Imperialists, who however appeared in December to have raised the siege.

After passing Nganking the River is again clear, steering S.Wly. until passing a sand point where the course becomes W. keeping to the left bank.

Rover Island.

After rounding a small islet called Rover Island, the course again becomes south, gradually approaching Christmas Island, the south point of which should be passed at $1\frac{1}{2}$ cable in order to avoid some mud flats lying on the left bank, only dry in December. Having passed these flats a mid-

Toong-lew.

channel course may again be steered until approaching Toong-lew, a third-class city with rather formidable looking walls, situated on the right bank of the River; abreast of which, on the left bank, an extensive flat is in course of formation.

It is advisable to give a point on which stands Toong-lew Pagoda a good berth, as, although shallow water was not obtained there, a great commotion was observed in the stream, apparently caused by some rock or other check to its even course.

After passing Pagoda Point keep to the right side of the River, thereby avoiding some banks in the centre, dry in December. The squadron, ascending the River in November, crossed over to the left bank, and became entangled among these shoals, *Furious* grounding on one; they are right abreast of three

Brick Kilns.

Brick Kilns, looking like mounds of earth and stones. In January the *Furious* and *Cruiser* cleared them by keeping close to the right bank, and had deep water.

When abreast of Hwang-nen-chin, where there is a Custom-house having joss poles, these dangerous banks have been passed. On the right bank of the River here are some high ranges, but the left is a perfect flat; and, although the bank was in November and December from 25 to 30 feet high, the country shewed evident signs of being frequently inundated. Sanpans were found at most of the farm-houses as far inland as from three to four miles, affording a very significant hint as to the state of the country

when the River is at its highest level. It must be borne in mind that the left bank, probably both, would then be covered, the River becoming a large lake; under those circumstances it would be advisable to keep in the most rapid part of the current, as it *always* runs strongest in the deep water.

At Dove Point the River takes a sudden bend at right angles to its former course for a short distance, the course becoming W.N.W. Keep the left bank aboard until entering Bullock Reach, when a S.S.W. course is gradually obtained. Near the termination of this Reach is situated the Seaon-koo-shan, or Little Orphan, a most remarkable small rocky islet rising almost perpendicularly out of the River and nearly 300 feet high; it has some joss houses and temples on its summit. Half way up its southern face some houses are perched, probably the residence of the officiating priests; if it were not for these convincing proofs to the contrary, it might well have been deemed inaccessible. In November it was separated by a very narrow belt of water from the left bank, but in December its base was connected by mud.

Dove Point.

Bullock Reach.

Little Orphan.

Right abreast the Little Orphan, a bold rocky head rises abruptly to a height of 400 feet; it is crowned by forts and look-out houses. At its base (south), is situated a fortified town (name unknown). The right bank is still rich in hills, which about here are very rocky and uneven. A mid-channel course may be adopted in passing the Little Orphan, getting no bottom at 9 fathoms until nearly abreast of Sea-kea-kow, when the left bank is to be approached, avoiding some shallow sand-banks near the opposite shore, the course becoming about west for five miles, when, still keeping to the left bank, it takes a more southerly direction into Blackney Reach; about half way down which is a shallow apparently extending right across the River, and over which in December the greatest depth of water appeared to be about 14 feet. After passing a village on the north edge of a small creek or stream about a mile, steer S. by W. for a low point near which are some houses, Chang-kea-kow, until the water deepens to 5 fathoms, when the right bank may be followed, gradually deepening the water to 8 and 10 fathoms.

Blackney Reach.

Point Becher.

Off Point Becher a sharp helm will be required, the eddies here being very rapid. West of Point Becher lies

Oliphant Island.

Oliphant Island, about $5\frac{1}{2}$ miles long, dividing the River into two branches; they are both shallow. The southern one was used in November, when $3\frac{1}{2}$ fathoms was the least water obtained. The branch north of Oliphant Island was examined but not approved of, as, although more water was found in it, several dangerous banks were sounded on. On 22nd December 1858, the water had fallen seven feet since the examination of these channels in the preceding month; consequently it was found necessary for H. M. S. *Furious* and *Cruiser* to await a rise in the river before attempting either of these channels; they were anchored at the imperial city of Kew-keang, and were detained there some days, when the shoals having been carefully buoyed and a rise of water having fortunately taken place, the north channel was passed;—the *Furious* grounded. Opposite point Becher are several sand-hills, on the right bank of the branch which conducts the tributary waters of the Poyang lake into the main stream. A fortified (?) temple situated on a steep cliff is also to be seen on the same bank.

Seymour Reach.

After passing the west end of Oliphant Island the course becomes S.W. by W. past the imperial city of Kew-keang, which lies on the right bank of the River having most imposing looking walls enclosing desolation and ruin, until entering Seymour Reach, where it becomes more northerly, and a mid-channel course may be safely steered. In November

Hunter Island.

the channel south of Hunter Island was passed through, but much difficulty was met with in getting the *Furious* over a flat extending right across the River, and on which are several sand-banks. This shallow ground lies abreast some very conspicuous red cliffs from 40 to 60 feet high situated on the right bank of the River. When opposite the west end of these red cliffs, cross the River carefully feeling the way by the lead.

In December the channel north of Hunter Island was taken; *Furious* grounded, but after some hours worked a passage for herself through the mud, and got into a vein of deep water very close to the left bank.

Court Reach.

The course through Court Reach is mid-channel, about W. by S. passing the town of Woo-tsih-tsan on the left bank. A lively trade in timber appears to be existing here. Three miles west of this town, some hills about 600 feet

high occur, the first break to the dull monotony of the left bank since leaving the vicinity of Nganking.

Abreast these hills the course becomes a little more northerly. Opposite the town of Foo-tsz-kow some shallows are forming in the River; the right bank appears to have most water.

The course up the River now begins to be about N.N.W.; no shallows appear to exist after passing Foo-tsz-kow, until approaching Ke-chow, when a very remarkable Ruined Fort standing on an isolated rock must be closed in order to avoid mud flats lying off the right bank. On passing two small hills about 2 miles below Ke-chow on the right bank of the River, steer for the Ruined Fort, passing at a hundred yards outside, and the shore at Ke-chow, at the same distance; by this means the mud flats which extend some 4 miles parallel to the bank will be avoided.

Ward Reach, which lies about N.N.W. and S.S.E. is now entered, and appears to be perfectly safe and clear; the left bank was kept aboard by the squadron, and no check whatever was experienced.

Ke-tow, or Cock's Head, may be passed close to; it is a very remarkable bluff rising perpendicularly to a height of 300 feet; it lies on the right bank of the River and cannot be mistaken.

A very dangerous rock, or rather collection of rocks, "Lee Rock," lies abreast some limestone quarries; at a place called Shih-hwuy-yaou on the right bank; in December six feet was obtained on them; the *Lee* struck when descending the River.

From Ke-tow steer west, being careful not to approach the right bank until Cock's Head (Ke-tow) is touching the low point of the opposite shore (left bank), when the Lee Rock will have been passed to the northward. The right bank may now be kept aboard, passing close to the densely populated little town of Hwang-shih-kang, when the left bank should be gradually closed, taking the channel east of Collinson Island. A small rocky hill 70 feet high and about $2\frac{1}{2}$ miles north of Hwang-shih-kang lies on the left bank, and marks the commencement of this channel, in navigating which the left bank is to be kept aboard.

Off the north end of Collinson Island an extensive flat lies, extending across the River; 4 fathoms was the deepest water found, and that was about mid-channel; a careful lead is the best guide here.

The right bank may be gradually closed, and, passing the small village of Yang-ke, kept close aboard to avoid a bank on opposite shore; it was dry in the month of December.

After passing a small ridge of hills on one of which is a very remarkable and conspicuous boulder, cross over to the other (left) bank, to avoid some shallow ground lying off the small village of Tsz-koo-kang; $3\frac{1}{4}$ fathoms was the most water found at this crossing; on obtaining 5 fathoms, on the left bank, steer boldly up the Pa-ho Reach, passing to the northward of two rocks, one 18 and the other 10 feet high; the latter lies due north of the third class city of Woo-chang-hien. In the summer these rocks would be covered; to avoid them keep the left bank aboard.

After passing Woo-chang-hien a mid-channel course may be steered until abreast of Hwang-chow Pagoda on the left bank of the River, when edge over towards Bythsea Channel. The squadron ascending and descending the River, was compelled to use this channel in December 1858, there not being sufficient water for the *Furious* in the eastern channel.

It must be navigated with *extreme caution*, keeping the right bank aboard; it is so narrow that a vessel touching on either side and swinging across would touch the opposite bank and have the whole weight of the stream pressing her down. At an earlier period of the year the eastern channel would have plenty of water in it, and if so the Bythsea Channel should be avoided.

The course now becomes due north and the River clear; Gravener Island should be kept aboard, avoiding sand-banks off the opposite shore. After passing Gravener Island, a sudden bend of the River leads into Washington Reach, through which a mid-channel course (about W.S.W.) may be taken; $4\frac{1}{2}$ fathoms was the least water found in this Reach in December, and the River was then nearly at its lowest level. The right bank is to be approached on nearing some rising ground nearly 300 feet high, which lies on that side of the River, and after passing which the same bank is

to be followed, as there appears to be shallow water off the left bank, after passing the Pih-hoo-shan, or West Tiger Hill, a prominent elevation of about 400 feet high. The River again takes a northerly course about N.N.W., and appears to be clear and free from any impediments.

West Tiger Hill.

Yang-lo, a small town on the left bank, may be approached close to. A ruined temple standing on the spur of a hill one mile south of Yang-lo is a conspicuous object. A mile north of Yang-lo Pakington Reach is entered, the course taking rather a sharp turn to the westward, gradually turning to the southward into Hankow Reach, which lies nearly S.W. and N.E., and becoming still more southerly at Hankow.

Yang-lo.

Pakington Reach.

Hankow Reach.

The two last-named reaches are, by keeping to the left bank, free of any impediments. North of a remarkable Bluff (200 feet high) called Kin-shan, which is on the right bank of Pakington Reach one mile inland, lies a sand-bank which dries in December; it is easily avoided by nearing the left bank.

Kin-shan Bluff.

Opposite Hanyang just above the entrance to the River Han, lies an extensive mud bank, dry four feet in December; a spit gradually deepening stretches to the northward from this, and affords good anchorage in from 3 to 7 fathoms.

At Hankow 384 nautical miles above Nanking, the River still maintains the same characteristics, shewing no signs whatever of a decrease, either in breadth or depth; the water under the walls of Woohang-foo is just as deep as at Nanking; no bottom at 9 fathoms can be obtained.

The season of the year at which the squadron ascended afforded good opportunities of observing banks and shoals which would be covered at an earlier period, but no just estimate could be formed of the force of the constant downward stream; a rate varying from $1\frac{1}{2}$ to 4 knots was observed, the latter only obtained in certain localities. In the summer the stream is said to obtain a constant rate varying from 5 to 7 knots,—a circumstance which will effectually deter European sailing ships from attempting the voyage up.

An immense fleet of junks are always at anchor at the mouth of the Han discharging and taking in cargoes; and large fleets appear to be constantly moving up and down the Yang-tze and

Han, telling tales of populous cities in regions still farther inland, westward and northward.

The latitude of Hankow is $30^{\circ}32'51''$ N., longitude $114^{\circ}19'55''$ E. Variation, $0^{\circ}13'0''$ (approximately).

No observations for dip were obtained.

(Signed,)

JOHN WARD,

Commander and Surveyor,

H. M. S. Actæon.



NOTE BY THE EDITORIAL COMMITTEE.

Commander Ward has kindly favored us with the following memoranda of distance :—

Gutzlaff Island to Woosung, 60 miles ;

Woosung to Chinkiang, 138 miles ;

Chinkiang to Nanking, 46 miles ;

Nanking to Hankow 384 miles ;

Total distance 628 nautical, or 729 geographical miles,

ARTICLE X.

THERMOMETRICAL OBSERVATIONS,

TAKEN DURING A PASSAGE FROM NAGASAKI TO SHANGHAI:

By CAPT. J. FEDOROVITCH OF THE RUSSIAN STEAM-SHIP "STRELOK."

Communicated by H. I. M. Consul-General M. C. de Montigny.

1859		N. LAT.	E. LONG.	REMARKS.	REAU- MUR.	FAHREN- HEIT.
Feb. 17	8 A.M.					
	10			Between Goto and	11°	67°
	12	32° 36'	129° 25'	Nagasaki.	12	59
	2 P.M.	...	...	...	13	61
	4	...	...	...	12	59
	6	...	...	...	11½	58
	8	...	...	...	11½	58
	10	...	...	...	10	55
	12	...	...	...	11	57
" 18	2 A.M.			...	10	55
	4	32 37	128 26	...	10	55
	6	...	...	...	10	55
	8	...	...	...	13	61
	10	...	...	...	13	61
	12	32 23	127 55	...	13	61
	2 P.M.	...	...	...	12½	60
	4	...	...	...	12½	60
	6	...	...	...	12	59
	8	...	...	...	11½	58
	10	...	...	...	11	57
	12	...	...	...	10	55
" 19	2 A.M.	...	...	...	9½	53
	4	...	...	...	9	52
	6	...	...	...	9	52
	8	...	...	...	9½	58
	10	...	...	...	8	50
	12	31 19	126	...	8	50
	2 P.M.	...	...	...	8	50
	4	...	...	...	7½	49
	6	...	...	...	7	48
	8	31 29	124 6	...	6½	47
	10	...	...	...	6½	47
	12	...	...	Saddle Islands	6	45½

ARTICLE XI.

RECORD OF OCCURRENCES IN CHINA.

PREPARED BY THE EDITORIAL COMMITTEE, April 20th, 1859.

THE treaties of Tien-tsin and Yedo form a memorable epoch in the diplomatic records of Eastern Asia, from which the future historians of China and Japan will date the commencement of free intercourse with the nations of Christendom. The treaties,—nine in all, four Chinese and five Japanese,—are very remarkable, alike on account of the facility and dispatch with which they were negotiated, and for the value and magnitude of their respective stipulations—political, religious, and commercial.

At the date of our former record, 1st of June 1858, the Chinese defenses at Taku had fallen, and the allied forces had advanced without opposition up the Pei-ho to Tien-tsin, where the plenipotentiaries of England, France, Russia, and the United States were in friendly communication with duly accredited ministers from His Imperial Majesty the Emperor Hien-fung. Lord Elgin's first public interview with Kweiliang and Hwashana was on the 4th of June, and Baron Gros' on the 6th. The principal cause of difficulty and delay with the allied ambassadors in meeting the Chinese high commissioners, appears to have been the lack of proper credentials from the Emperor. When the letters of credence were objected to, as not corresponding to what were held by Kiyung and others at Nanking, it was even averred that Kiyung's were a forgery! The terms adopted in Chinese, *Tsiuen Kiuen*, for "Full Powers," may deserve further consideration of diplomatists; their use, as a technical phrase, would seem not to have been well understood by, or satisfactory to, the Emperor and his Cabinet.

The foreign forces that had assembled in the Gulf of Chihli previously to the advance, consisted of thirty-five vessels,—one Russian, two American, twelve French, and twenty English. Subsequently these were somewhat augmented. Nearly one half of the whole were gun-boats.

Previously to the destruction of the forts, negotiations had been opened by the Russian and American ministers and were proceeding favorably. But it was otherwise with the allied representatives, whose position, on account of the occupation of Canton by the English and French troops, made it necessary for them to act with the greatest caution. So dissatisfied were both Lord Elgin and Baron Gros with the credentials of the Emperor's ministers and the hostile bearing of the Chinese, especially in their vigorously extending and strengthening the defenses at the mouth of the Pei-ho, that they finally deemed it expedient to advance towards the Capital.

Preparations were made accordingly by the two commanders-in-chief, rear-admiral Sir Michael Seymour and rear-admiral C. Rigault de Genouilly. On Thursday, the 20th of May, at 8 A.M., a summons demanding the surrender of the forts within two hours was sent on shore, and with it a guarantee that, being surrendered, the forts should be held intact, and duly restored on the termination of the negotiations. The two hours having elapsed, the advance began, and the forts opened fire. The contest lasted two hours and a half, when the native troops were all dispersed, and the defenses were in course of being destroyed.

The number of Chinese engaged, of all arms, was variously estimated from five to ten thousand. Their number killed during the engagement was believed to be not more than four hundred; the total casualties on the part of the allies were twelve killed and seventy-six wounded. None but gun-boats and other light vessels were brought into the river on account of the bar at its mouth.

No further hostile collision occurred; and the armed flotilla at once proceeded up to *Tien-tsin*, "Heavenly Ferry;" at which place the *Pei-ho*, "White River," forms a junction with the "Grand Canal," *Yun ho*, lit. "Transport River." *Tien-tsin* is a walled city, situated about sixty miles from the mouth of the river and nearly the same distance from Peking.

On the 29th, the allied admirals having reported the river to be clear of obstructions and its banks without any native force to oppose their progress, all the foreign ministers moved from the outer anchorage, off Ta-ku; and the next day, May the 30th, they reached *Tien-tsin*. Negotiation now became the order of the day.

Such an attitude as that then exhibited had never before been assumed by the powers of the west in regard to any of the nations of Eastern Asia; and the spectacle was as novel as it was imposing in the sight of the Chinese. The English and French troops were occupying temples and other buildings on the west side of the canal, while their ships were anchored in the Pei-ho close to the canal and on both sides of its mouth,—their position enabling them, if it should be necessary, to shut off every person from crossing the canal or river, and at the same time to command the city on the north and west. The four ambassadors were all comfortably quartered on shore in native buildings.

Our present record of the negotiations which ensued must be very brief, comprising only a few leading particulars with some of the most prominent and immediate results. To be fully understood, however, these must be viewed in connection and contrast with former usages in the celestial empire, especially such 'old customs' as have had relation to foreigners.

The intercourse between the nations of Christendom and those of the far east, till recently, has been very unlike that which has characterized the independent governments in the opposite hemisphere in their international relations. In China, Japan, and the neighboring kingdoms, the people of the west, and especially the agents of western powers, have been usually looked upon as most unwelcome visitors; and they have been treated accordingly,—watched and restricted to a degree well-nigh intolerable. This state of things, disagreeable and unnatural as it was, could not even half a century back be altered. The Chinese especially considered themselves as a great and powerful people, and, in comparison with most of their immediate neighbors, as enlightened and refined; and the little that they saw and knew of the people of Christendom did not much alter this opinion of their relative standing, when compared with their more distant neighbors, the inhabitants of Western Asia and of Europe.

The Russians, early coming upon their northern frontier, were by force of circumstances long ago compelled to negotiate with the Chinese. Two treaties were formed, one in 1689, and another in 1727. Among the best results of these treaties was the establishment of a college in Peking consisting of ten Russians,—four ecclesiastics, two students in Chinese, two in Manchu, and two in Mongolian.

After nearly two centuries of commercial intercourse with China, Great Britain, in 1793, sent an embassy to the Court of Peking; and another in 1816. Both of these were misunderstood by the Chinese, and failed to work out any salutary results; and it was not till 1842, after three armed expeditions in three successive years had been sent out from England, that a treaty was negotiated and finally ratified between the two empires.

Both the United States and France—taking advantage of what had thus by force been secured to the English nation, and at great expense,—came forward and pressed, ably and successfully, their respective suits; and each, through its own representative, obtained a similar recognition, with some additional advantages. The treaty of Wanghia was signed on the 3d of July 1844, and that of Whampoa on the 24th of October the same year.

All these earlier compacts, with Russia, England, the United States and France, were negotiated under somewhat peculiar circumstances, and by experience were found to be defective and unsatisfactory. Consequently the Four Treaty Powers resolved, almost simultaneously, to have new ones framed and accepted in their stead. In fact, one of the four stipulated in express terms that after the lapse of twelve years negotiations if desired might be reopened.

We have thus gone back to past times in order to show, as distinctly as we can, that all the treaty stipulations entered into by the Chinese have been *forced* upon them by foreigners. In this same point of view, too, we must not fail to place the new treaties now under consideration. Situated as the representatives of foreign powers were in China, contention by force or the surrender of their independence were the only alternatives.

They err, we think, who fancy it was any one single incident, such as that of the *Arrow*, which moved the English government to send out an armed expedition and one of its ablest diplomatists, to establish a new and improved basis of reciprocal intercourse. It was, we believe, nothing less than the clear conviction of duty to secure those just and equitable rights and immunities, long since recognized as reciprocally due between independent nations. They err no less, perhaps, who imagine it was the loss of a single missionary by violent hands, which induced the Emperor of the French to join in the great "demonstration." It was a long series of cruel and oppressive acts, placed on record but not

redressed, which forced the allied powers to interpose, as well for others as for themselves. The unsocial and overbearing policy of the Chinese government must be looked upon as the chief cause of all the past hostile contentions,—henceforth to be succeeded, we hope, only by peaceful and honorable relations.

While the intercourse between the Chinese and the people of the west was exceedingly limited, the claims of the imperial court to universal homage, holding that its head was the true sovereign of "all people under heaven," might be tolerated; but as the distance between the ends of the earth became shortened, and the inhabitants of the two hemispheres were brought into closer proximity, by the aids of modern science, changes in modes of intercourse and in political relations became inevitably necessary. The Japanese, in regard to their own place in the scale of nations, saw and appreciated this necessity, and wisely yielded without an open rupture. The Chinese have been less discerning, less prudent, and must now abide the consequences, however disastrous to their ancient and venerated system of government. Had not England and France entered the lists against the Chinese, as belligerents, Russia must have done so very soon. The chief aggressions, in fact, on the domain of the Manchus, have been along the northern frontiers, throughout the whole extended line of demarkation between the Russian and Chinese empires, from Central Asia to the Pacific Ocean.

The scene at Tien-tsin, now under review, was one of very extraordinary interest to the Chinese and to all the world, and in it we may recognize the hand of Him "whose kingdom ruleth over all." Holding diverse instructions from their respective governments, the foreign ministers were all alike importunately demanding immediate concessions, and would accept no denial. The old order of things could be tolerated no longer, and must give way. That government, which for more than three thousand years had claimed preëminence over all others, must now become subordinate, make indemnity for the past and give securities for the future. England, France, Russia, and the United States, with large and important interests in common, had each their own claims, for which at once legal provision must be made by solemn compacts.

Accordingly four new treaties were formed,—severally bearing date as follows: that with Russia, June 13th; that with the United States, June 18th; that with England, June 26th; and

that with France, June 27th, 1858. These were all signed in one and the same place, the *Hai-kwang sze*, one of the large temples of Tien-tsin.

To the great surprise of all Europe and America, the news of the signing of these treaties was announced in St. Petersburg, Paris and London, by way of Siberia, and then flashed across the Atlantic—being one of the first messages transmitted by the submarine cable. Mounted on horse-back, the Russian courier who had come from St. Petersburg in April, set off on his return June 27th.

Immediately after the signing of these treaties, the combined squadron withdrew from the Gulf of Chihli, and the Bay of Yedo became the scene of leading interest. First and last, great efforts had been made to negotiate with the Japanese,—the most recent, and the most successful having been made by commodore Perry in 1854, and by J. H. Donker Curtius, Esq., in 1857. It was not, however, till the summer of 1858 that the opening of Japan to the principal nations of the west was effectually secured.

Mr. Townsend Harris, with only his private secretary, proceeded up to the city of Yedo, and there with two imperial commissioners concluded a new treaty, drafting each successive article with his own hand. The 29th of July, on board the *Ponhatan* off Kanagawa, this treaty was signed. On the 18th of August, and in the city of Yedo, the Dutch commissioner, Mr. Donker Curtius, signed a new treaty. At the same place, and about the same time, Count Poutiatine followed his example. On the 26th of August, just two months from the conclusion of his treaty at Tien-tsin, Lord Elgin signed a new treaty with the imperial government in the city of Yedo. In the same place, a few weeks later, Baron Gros signed in like manner.

By these several treaties with China and Japan, concluded in such quick succession, great and manifold advantages have been secured, and numerous and weighty responsibilities incurred. In them are involved, more or less directly, the varied interests of more than half the population of the earth; and the importance of their being duly observed, therefore, can hardly be overestimated. By these solemn compacts the Middle Kingdom and the Land of the Rising Sun are brought into the family of nations, and must stand amenable to their laws. All people will watch and wait for whatever may be the issues of these new relations, as the several

treaties come into operation. The specified periods are near at hand for the exchange of the ratified copies; but till that exchange shall have been made, and the treaties have been published by authority, we cannot detail their provisions—for resident ministers at Peking, the opening of new ports, &c., &c.

A few collateral topics, in addition to those already noticed, must not be omitted in our present record.

During Lord Elgin's visit to the city of Yedo, H. M. steamer *Emperor*, a yacht of 318 tons, was presented to the Japanese government, with appropriate honors; and, named *Dragon*, now carries the Japanese flag. On the 16th of August the *Cubo-samu*, or *Tai-goun*, deceased; his death was concealed from the public and from foreigners until the 12th of September, to avoid interrupting the then pending negotiations. The new emperor is a youth of some fifteen years; his coronation took place in the capital on the 4th of last January.

The melancholy fate of Kiyong is strong testimony against the equity and justice of the Imperial government at Peking. During the negotiations at Tien-tsin, he was suddenly brought forward as commissioner, and as suddenly disappeared. The particulars of his case seem to be involved in mystery; and, for the honor of the court and cabinet, may well be consigned to oblivion. It is generally believed, however, that he died by his own hands, in obedience to the Emperor's commands. This must have been early in July; his first appearance at Tien-tsin was on the 9th of June; and on the 13th, "bound in fetters," he was on his way back to Peking. While at Tien-tsin he was accompanied by his old friends, Hwang An-tung, Chau Chang-ling and others.

While the foreign ministers were at Tien-tsin, it was stated by one of the Chinese officers that their last census gave to the empire a population of 400,000,000 and odd,—thus corroborating that found in the governor's palace in Canton, and that of the Imperial Russian embassy at Peking, both of which give above four hundred millions.

The Russian mission in Peking is no longer to be considered temporary. Its members can now go and come at pleasure. A postal service, by carriage, passes once a month between Kiakhita and Peking, delivering mails in each place in not more than fifteen days; and every three months a convoy is despatched, to perform the same journey in the period of one month. The

frontiers between the two empires are to be surveyed by a special commission and definitely fixed by a separate treaty.

Here in Shanghai, on the 8th of November, the new Tariff and Trade Regulations previously agreed upon were duly signed, by the Imperial commissioners Kweiliang and Hwashana on the part of the Chinese government, and by Lord Elgin and the Hon. Mr. Reed in behalf of their respective governments.

The same day Lord Elgin and suit embarked here for an excursion on the Yang-tsze. Having proceeded up the river to Hankow, his Lordship returned to Shanghai on new year's day, January 1st 1859. This expedition, one of the legitimate results of the new system of relations, must be regarded as the first grand move towards the effectual opening of this empire to free and friendly intercourse between the Chinese and foreigners. Its particulars can not be here detailed beyond a few fragmentary items touching the Kwangsi insurgents.

While at Nanking, Woohoo, and other places, gentlemen connected with the expedition had repeated opportunities for observing the condition and character of these insurgents. A great deal of uncertainty still hangs around them; and the impression left on the minds of the visitors, taking them all in all, were not favorable. Whether Hung Siu-tsiuen is dead or alive is still a matter of doubt. Certain it is, however, that the printing of the Bible has been continued at Nanking. We have seen the first and last books of the New Testament, which they have published; and also some of the books of the Old Testament. The insurgents have also, from year to year, issued their own Almanac, that for this year being the ninth of their *T'ai P'ing T'ien Kwoh*. It may be remarked that they still continue their original chronological arrangement, which is causing an accumulation of error year by year in regard to the half monthly solar terms. The months are alternately 31 and 30 days, without intercalary periods. The sexagenary cycle, the stellar cycle of 28, and the Sabbath days are all correctly placed in their Calendar.

In the summer of last year, the Austrian frigate *Novara*, on a voyage round the world, arrived in the harbor of Shanghai. She had been fitted out under the patronage of His Imperial Highness, the Arch-duke Ferdinand Maximilian, and was under the command of commodore B. de Wuellerstorff and Urbair, baron Pöck captain, with a staff of ten officers, three physicians, a chaplain

and a secretary. The expedition left Trieste in April 1857, and was designed to be the first of a series of scientific voyages. Her visit here was rendered specially noteworthy by the presence of a scientific commission, consisting of Messrs. Frauenfeld and Zelebor, zoölogists; Mr. Tellmek, horticulturist; Mr. T. Selleny, artist; Dr. Schwarz, botanist; Dr. Hochstetter, geologist; Dr. Scherzer, ethnographer, &c., &c.

These distinguished visitors, the officers of the *Novara*, and the gentlemen of the Scientific Commission, were welcomed by the members of the Shanghai Literary and Scientific Society at a special meeting on the 10th of August. At that meeting an interesting paper, explanatory of the objects of the expedition, was read by Dr. Scherzer; "it was," he said, "designed to be advantageous not only to the Austrian navy but to science in general; almost all the principal scientific institutions in the empire, the Geographical Society, the Central Institute for Meteorology and Terrestrial Magnetism, the Geological Institution of the Austrian Empire, the Imperial Society of Physicians, also a number of Austrian and foreign savants, with the noble and venerable Von Humboldt at their head, had all, in various ways, contributed to the fitting out of the expedition."

Last, but not least, in our record of Chinese affairs, we notice the return of foreigners to the City of Rams, and the peaceful advances of the allies, first to the headmen of the ninety-six villages, and then up to the frontiers of the "Wide-West." In point of geographical interest, the excursion to *Wuchau fu* in Kwangsi, 200 miles more or less from the city of Canton, is second only to that to Hankow. We are glad to know that a "surveying staff" accompanied the expedition, the whole under the direction of their excellencies general Van Straubenzie and commandant D'Aboville. The excursion occupied about three weeks, dating from the 16th of February.

In Annam (or Cochin-China, according to our old geographers) the operations of the French and Spanish authorities are as yet too imperfectly reported here, to enable us to state the actual results. We doubt not, however, that by their means, under an All-wise Providence, modern science, commercial enterprise, and true religion, will be greatly extended. To the natural historian of our day, South-eastern Asia, like Central Asia, is to a very great extent almost literally *terra incognita*.

Over this whole wide continent of Asia, from north to south, and from east to west, the signs of the times are auspicious; especially so are they in India, in China, and in Japan.

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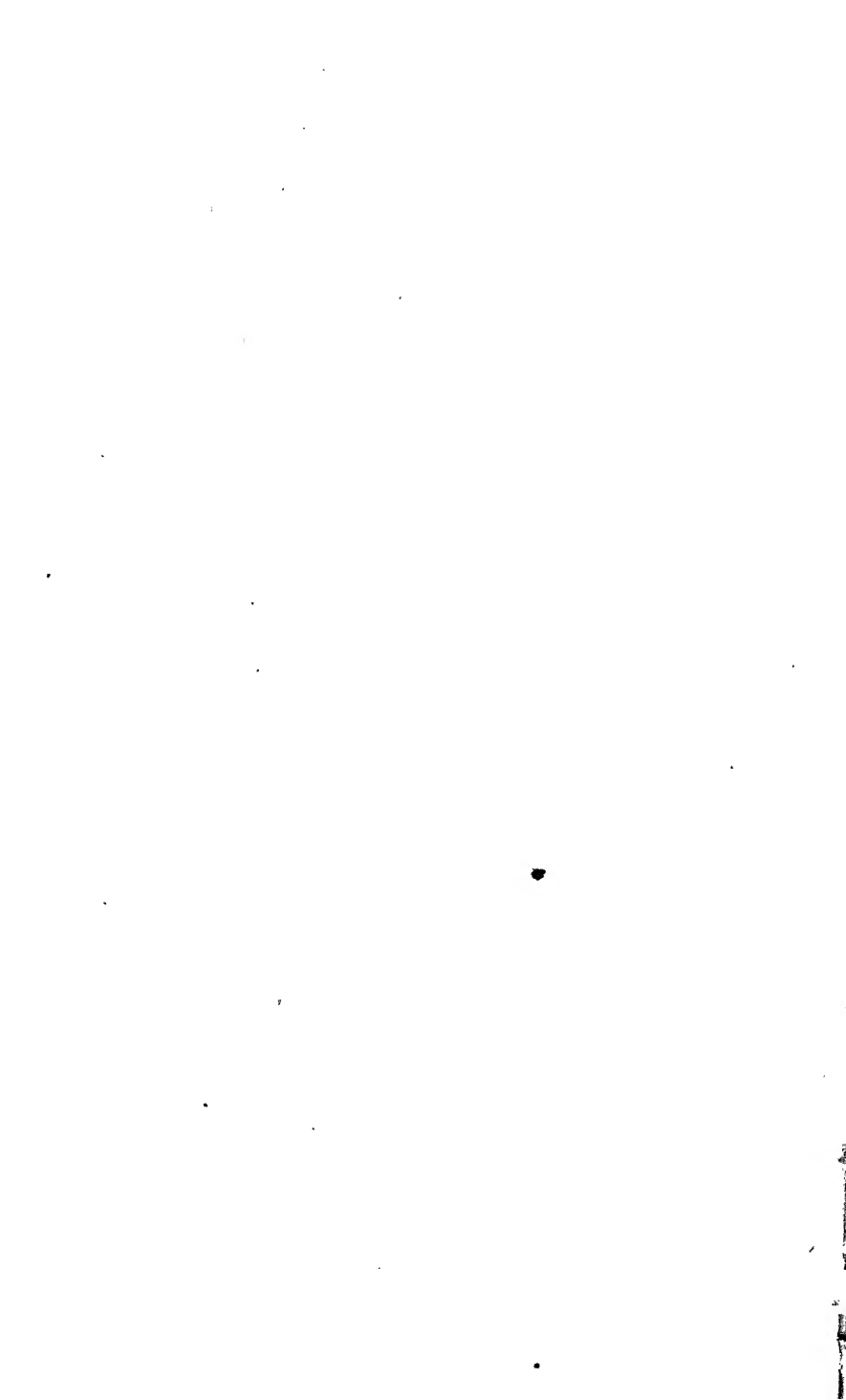
PREFACE.

AT the opening number of a second volume, we might well leave our Journal to introduce itself, assured by the favourable reception of previous issues, that the objects of our institution are being thus far successfully accomplished.

In taking this opportunity to acknowledge the contributions which have been placed at our disposal, we are glad to be able to point to a fair variety of subjects in the present number.

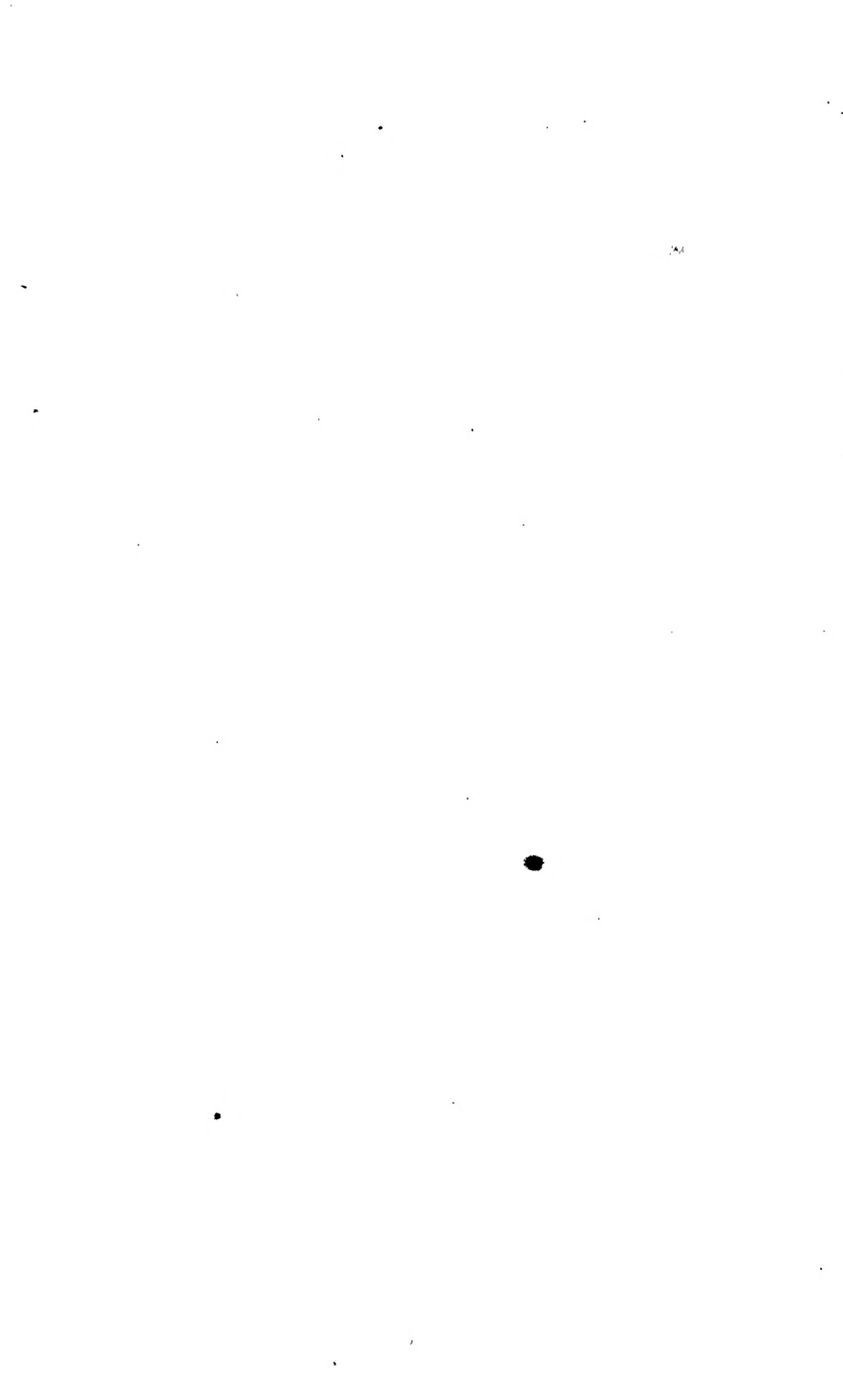
The interesting events now occurring in this empire, so pregnant with *matériel* on which are based the hopes of occidentals, will, we are persuaded, open a much wider field for scientific pursuits and enlightened investigation. China has long engaged the attention of the world, and is amply repaying the efforts that have been made towards securing the benefits of mutual intercourse between the two hemispheres. Japan must still be looked to as a land of promise; but what is already known, is sufficient to stimulate progress, and to place the prospective advantages beyond the region of surmise. It may be but the "crumbs from the table" that shall fall to our share; yet we have no doubt of being able to insure a continual supply of such articles as shall interest the intelligent reader, and add our mite towards the more perfect elaboration of the history of *Cosmos*.

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ARTICLE I.

A SKETCH OF THE LIFE OF CONFUCIUS.

BY THE REV. JOSEPH EDKINS.

CONFUCIUS became the acknowledged chief sage of China almost immediately after his death. The energy of his personal character, the influence of his system, and his teaching, were at once very widely felt. A short time only elapsed before he was placed highest, in position, among all the philosophers or teachers of the country. In the History of Sze-ma Tsien his biography is found among those of royal families, and not, where we should have expected to meet it, along with the lives of scholars and sages. Commentators on that work explain this as resulting from the extraordinary reverence with which he was regarded. The biography given by this great historian is very full of facts. There is indeed no lack of evidence and particularity respecting the life of the great sage.

The following selection of these facts will serve to shew of what kind they are. As one of the world's greatest and most noble-minded teachers, he deserves special attention from us and a much fuller notice than the one now before the reader.

Belonging to the sixth century before the Christian era, Confucius was contemporary with Thales and Pythagoras; but he differed greatly from them in the practical character of his philosophy and his abstinence from speculation. He was great as a moralist, and therefore he is rather to be compared with Socrates, who was somewhat later. These two men are alike in the

extent of their influence, in deep moral convictions, and in the high rank they assigned to morals. Yet they differed much in personal characteristics and their mode of treating the subject on which they gave instruction. Confucius was the stern censor; Socrates the acute reasoner and master of irony. Confucius refused to discourse on the future state; Socrates loved to meditate upon death and the after condition of the soul. Confucius laid down rules for the government of self, of the family and of the state; Socrates was rather the inquirer after knowledge and the lover of virtue for its own sake, holding that to be virtuous is to be happy. Confucius followed antiquity; the good examples and instructions of past sages were to him law and authority. Socrates rather listened to the internal voice, which if carefully heard will teach us what belongs to us and what we ought to do. The influence of Confucius embraced, besides what is of a moral kind, that also of a scholar and critic. He gave to posterity editions of ancient books, the repositories of the earliest Chinese wisdom. The influence of Socrates, so far as it was not of a moral kind, was that of a philosopher. His disciples, taught by him how and where to inquire, founded mighty systems of human thought which have never ceased to exercise the most powerful effects on mankind. Confucius is described by his disciples as morally pure, amiable, good, respectful, careful, temperate, and yielding in his disposition, so that he was honoured and trusted by contemporary princes, who sought his advice without his ever being forward to tender it. Socrates is painted by his disciples as spotless in moral character, pious, upright, temperate, clear-sighted, and, when unjustly condemned to die, as exhibiting the most exalted courage and resignation.

Without proceeding further with these comparisons, which are in anticipation of the subject, it is time to proceed to the details connected with the life of Confucius.

The family name of Confucius was Kung, and his proper name Kieu. This last is not to be spoken; and the sound *Meu* is substituted for it in reading. It is the name which Chinese etiquette forbids to be mentioned; and which is therefore called *hwei*,* the prohibited name. His common appellation was *Chung-*

* Sometimes a rich Chinese has discovered that his proper name has been the same with that of one of his ancestors, and has paid a large sum to government for permission to take a new name.

ni. His father called him Kieu, it is said, because he had prayed for a son to the spirit of the hill (Kieu), known as the Ni mountain; but others say, because of a curiously shaped wen upon his head. He was born in the year B. C. 551. His father Shuh-liang Kih, was descended from a native of the Sung country, who had fled to the Lu kingdom to save his life from the anger of the ruler of Sung. The progenitors of Confucius had been resident for five generations in the Lu country when the sage was born. His mother was the third of three sisters. The sisters were one day addressed by their father thus: "Shuh-liang Kih is the offspring of ancient sages and kings. He is nine feet in height,* and possesses vast physical strength. I envy him. Although he is a widower, with nine daughters, you need not fear to marry him. Which of you will be his wife?" The third sister said,—“I will do as my father appoints.” “Then,” said he, “you shall be his wife.”

Shuh-liang Kih died when young Confucius was three years of age, leaving him in charge of his mother. At seven Confucius went to school; at fifteen bent his whole mind to learning; and married at nineteen. His height exceeded his father's by six inches. At twenty he took office under the prince of Lu, and at twenty-two he began to instruct disciples. When his mother died he buried her beside his father, instead of placing her remains in a separate resting place. He preferred not to follow the custom that then prevailed in some parts of China. She lay in the grave† on the west side of her husband, and the feet of both were turned to the south.

He soon began to visit the little kingdoms, several of them embraced in one of the modern provinces, which then divided among themselves northern China. He proceeded to the Cheu country to witness the remains of the institutions of Wen and Wu. These famous chiefs had founded the dynasty of that name several centuries before. Their descendant, styled Hi wang, inherited the royal dignities of the Cheu family in the time of the

* This is probably a short Chinese foot of about ten inches, according to our measurement. There are grounds for thinking that anciently there was also a foot corresponding to eight modern inches. The natives of Shantung and the neighbouring province Chihli are still noted for their stature.

† The grave and temple of the parents of Confucius are at the hill called Fang shan, seven miles to the east of Kieh fei, the town near which is the grave of Confucius himself. The temple and tomb are in charge of the descendants of the sage.

sage and was the lord paramount to whom the rulers of all the other states rendered or ought to render feudal obedience. Confucius examined the temples to the boundary divinities and the gods of the land, the temple to ancestors, the private palace (ming t'ang) and the hall for audiences (chau). When he had examined these antiquities he said,—“I know now how truly wise was Cheu kung.” It was here that he visited Lau tan, the celebrated founder of the Taoist religion, who praised him for the depth of his wisdom and the purity of his doctrine and conduct.

His usual object in journeying to other states was to give advice to the rulers of those states with regard to their mode of government. If they did not follow his advice, he declined their presents and the tokens of their good-will. He also examined into the customs, the music, and the court ceremonies of the regions he visited. He was so enraptured with the music he heard in the Tsi country that he failed to notice the taste of animal food for three months after. He found on returning to Lu, his native state, that its ruler made use of a certain dance in the court ceremonies which formed a part of the ritual of the lord paramount. This excited the indignation of Confucius, who wished to see ancient customs strictly observed by men of all ranks. More than once he reproved the princes of small states for performing religious acts that should be exclusively done by princes of higher grade.

The disordered condition of the Lu kingdom growing worse and worse, Confucius at length resigned office, and applied himself solely to books and to teaching. At the age of forty-seven he retired and edited the classics. He was the critical editor of the national sacred books and the expounder of their doctrines. He attempted to transmit in a pure form that which had been taught by the early sages of his nation. It is this circumstance that imparts certainty to the Chinese account of Confucius. He lived in the historical period, in an age of criticism, himself performing the chief part in that criticism. There is no difficulty in knowing certainly that he lived at the period, and wrote the works ascribed to him, when this point is properly kept in view.

After passing through lower offices Confucius was made first minister of Lu, the modern Shantung, at fifty-four years of age. His disciples noticed that he looked extremely pleased, and asked him,

"We have heard that the superior man* when calamity comes is not grieved, and when happiness comes is not glad, why then are you so pleased?" He replied,—*"There is such a saying, but it does not mean that there should be rejoicings when the inferior man is raised to a post of honour."* He had held the reins of government seven days only, when he put to death for misconduct an influential person named *Shau-chen Mau*. *Ts'i-kung* one of his disciples came to him and inquired whether this act of severity was not a mistaken one. The reply of Confucius was as follows. *"There are five evils in the world, a dangerous nature inclined to mischief, conduct perverse and stubborn, a false and plausible tongue, a tenacious memory for what is bad, a disposition that readily yields to what is wrong. To possess one of these is to deserve death at the hand of the good ruler (kiun ts'i). This man possessed them all. He had great facilities for collecting a band of followers to do mischief, and great powers of persuasion for deceiving the multitude. Added to this he was restless and ambitious, and therefore he could not be suffered to live."*

Confucius lived to be so old a man that some of his pupils died before him. When he heard of the death of *Yen Yuen*, he exclaimed, *"Heaven has inflicted a loss upon me. Heaven has inflicted a loss upon me."* He finished his annals of the *Lu* kingdom, his native state, at seventy-one. It contained the history of 240 years, and was called *Spring and Autumn*. This work is regarded as a model for the judgment exhibited in the selection of facts, the laconic style of its composition, and for the clear, simple, honest and decided manner of the author. He said himself that he wished to be judged by this production, and that from the time of its publication all thieves and traitors in the empire would begin to feel alarmed. This illustrates the Chinese idea of the duty of a historian. He holds in his hands a moral power, which he must ever exert on the side of virtue. It is from him that retribution for crime proceeds, and the severity of his sentence is perhaps feared the more because the retribution of the future state is so little believed in China.

At seventy-two he felt his strength decay. He said,—*"I am*

* The superior man, *kiun ts'i*, is he who combines wisdom with benevolence, and indeed who constitutes the ideal man, the pattern of all virtues. The word *kiun*, means prince, and causes the compound term to mean something like *"nature's nobleman,"* he who is born to hold high station.

sinking. I shall not again dream that I see Cheu kung." This prince, one of the national sages, was the brother of Wu wang the first emperor of the Cheu dynasty. One day Confucius called to him Tseng tsî, a favorite disciple and said,—“There is one thing which constitutes a summary of my doctrine.” He then committed to his care the Ta hio, Great instruction, which says,—“The doctrine of the great instruction consists in the illustration of resplendent virtue, in bringing the people near to you, and in stopping at the point of perfect virtue.” He also committed to Tseng tsî, the Book of Filial Piety, Hiau king. It says,—“The ancient kings in rendering the empire obedient, employed one perfect virtue and important doctrine, by which the people were kept in harmony with each other, and no enmities existed between the high and low. The foundation of virtue and the chief thing in education is filial piety. The Ta hio was originally embraced in the Li Ki, Book of Rites. The Hiau king was a separate and independent work. Confucius used to say,—“The character of my mind is seen in the Spring and Autumn [Annals], and of my morality in the Book of Filial Piety.”

A panegyrist said of Confucius,—“He preserved to us the remembrance of Yau and Shun, the wise princes who flourished in the first period of our history. He held up for admiration the deeds of Wen and Wu, the founders of the Cheu family, the most long-continued of all the dynasties, and that under which Confucius himself lived. He prepared a standard edition of the national history (Shu king) and poetry (Shî king). He gave a corrected detail of the ceremonies and music to be regarded as those established by precedent and authority. He compiled the Chun tsieu, the model of history and of historical morality, and he extolled the doctrine of the Yih king, Book of Changes, which contains the national philosophy. More than 3,000 disciples were taught by him, and they admired so much the tasks he accomplished that they were expecting wise princes like those of antiquity to reappear in the world.”

When he was another year older, he heard of the death of Tsi lu, a pupil to whom he was greatly attached, and he uttered loud lamentations on occasion of it. A few months after in the summer time he rose early one morning and with the aid of his staff walked for awhile near the doorway of his house, singing the words—“The mountains are falling; the trees are going to decay;

wise men are disappearing." He entered the doorway and sat down. Tsi kung when he heard it said,—“The master is about to be sick,” and hastened to his side. Confucius said to him,—“You are late in coming. Illustrious kings no longer appear. Who will be able to carry out my doctrines?” He died, after seven days’ illness, in the year B. C. 479. His disciples mourned for him three years, and after that period returned to their occupations. Tsi kung built a hut over the grave, remained there for three years more, and then went back to his home.

His faithful followers, unwilling to desert him, built houses near his tomb. They received the name, “Village of Confucius.” Sacrifices were offered him year by year, and the literati met frequently at the tomb to celebrate his memory. The building in which they met was afterwards converted into a *Miau*, or temple to the dead. The clothes and cap, harp and books, of the deceased sage, were here preserved.

In the perpetual worship of Confucius, which then commenced, titles of honour given by successive emperors were employed. For the first few centuries after his death, he was spoken of as Father, with a string of preceding adjectives. In the Tang dynasty, A. D. 700, he was styled,—Wen siuen wang, the king, proclaimer of literature. During the Sung and Ming dynasties, when the practice of conferring posthumous titles was greatly extended, new epithets were added to those of Confucius. The term wang, “king,” was not dropped till the sixteenth century, when the title now used in temples was appointed by imperial edict. It runs—Chí sheng sien shi kung tsí, the most holy ancient sage Confucius. The founder of the Ming dynasty in the fourteenth century, appointed that sacrifices should be offered to Confucius in every city through the empire. He was called by a decree, “Lord of the element of wood.”

In thus adding to the religious ceremonies performed in honour of the great sage, his ancestors were not forgotten. A chapel was placed behind the hall where the tablets of the philosophers are worshipped, as a receptacle for those of the father of Confucius and the other principal wise men of China.

The first of the five titles of hereditary nobility, namely, that called kung, “duke,” was conferred in perpetuity on the eldest of the male descendants of Confucius in a direct line. He is entitled, Yen-sheng-kung. The Chief Magistrate of the city where he was

born is always chosen from his descendants, as also the official examiner in literature for the same city.

The way in which the Chinese characterize the peculiar merit of Confucius, is to represent him as the preserver of the doctrines of Yau and Shun, and the other wise emperors of antiquity. They say that heretical doctrines sprang into life and grew luxuriantly very soon after his time, and if he had not edited the classical books, posterity would not have known what those earlier doctrines were. He taught the true mind of heaven and earth, laid down laws for mankind, recorded the instructions of past sages, and pointed out the path of peace and virtue to all coming generations. Was he not then, they ask, wiser than Yau and Shun?

Among these traditional doctrines they mention—(1) Taking the middle. This was the advice of Yau to Shun. It is true for politics and for philosophy. Confucius made it the basis of the Chung Yung, the Invariable Mean, a work which was formerly appended to the Li Ki, or Book of Rites, but was in modern times made one of the new division called the Four Books. They mention—(2) Filial Piety, which he shewed to be the principle that chiefly influenced all the wise kings of antiquity, and which they transmitted in succession from Yau to Cheu kung. They notice in the teaching of Confucius—(3) His record of bright examples, instructing men in their duty, and in correspondence with this, his description of the universal harmony seen in heaven and in earth. Both of these were given in the oldest part of the Book of History as the doctrine of the early emperors. They also include in these instructions—(4) The utterance of Confucius respecting *jen*, benevolence. He described it as embracing self restraint and self discipline, with the exercise of respect and polite attention to others.

Confucius avoided the discussion of obscure subjects. He preferred to speak upon those which were useful and important in a practical view. In the work Lun yu he explains and enforces the virtues, love to parents and other relatives, fidelity to kings and friends, and benevolence and uprightness towards all. The same work treats of human nature and of the law of heaven only once, and in that case it is his disciple Ts'i-kung that speaks. He discusses not the causes of things but their practical character. Mencius loved to search into causes, and in this he differed from Confucius.

The following is an example of his teaching. The subject is *jen*, *benevolence*, or *goodness*. "For your neighbours to be distinguished for goodness is well. If you do not reside among the good you cannot be intelligent. None but the good can bear well the restraints of poverty and resist the temptations of abundance. Only the good man is able to love and to hate men as he ought. He whose will is set on goodness is free from what is wrong. A man cannot establish his name except he be good. I have not seen the man who truly loves goodness and hates what is not good. He who loves it knows that it is better than every thing else. He who hates what is not good will most assiduously avoid it. I have never known a man use his strength to be good and find it not sufficient; if there be such a man I have not yet seen him. Would you know if a man is good, look at his faults, for faults depend on men's temperament. Goodness is not far from us; if I wish it, it is here (within me). As to my being holy or good, I dare not profess it, but I may say this, that I never feel otherwise than pleased with what is good, and am never weary of instructing others in it."

When Yen Yuen asked him, what is goodness? Confucius replied, "To subdue self and return to orderly conduct. Let a man subdue himself but for one day, and the world will come back to goodness. Goodness consists in rigid self-control and kind forbearance towards others. Its rule of conduct is this;—What you do not wish others to do to you, do not to them.—To make goodness operate in the world, five things are needed, viz: to be respected, liberality, fidelity, intelligence and kindness."

This account of *jen*, goodness, may help us to understand the place held by the Confucian ethics among other systems. It comprehends so much more than mere benevolence, that it appears to approach nearly to our word *virtue*. It includes the ideas of goodness, self-discipline and love; and its rule of action towards others is the same as the golden rule of our Saviour,—“Do unto others as ye would that they should do to you.” Our own word goodness has much the same extension of meaning. Virtue as a feeling and an activity is benevolence, *jen*, as thus extended in meaning. Virtue personified is the superior or virtuous man, *kiun-tsi*. The virtuous man takes for his law of action the *chung yung*, or *invariable mean*, the medium between two extremes. On the one side of it are faults of omission, and on the other

of commission. This agrees with the doctrine of Aristotle on virtue.*

This doctrine, of the virtuous middle, Confucius professedly derived from Yau, the ancient wise emperor, adding to it himself the idea of time. The virtuous action should not only be between extremes in its own nature but also in the time of its performance. It came through the hands of the emperors and sages, Shun, Yu, Tang, Wen, Wu and Cheu kung, to the epoch of Confucius.

The religious feelings possessed by Confucius may be judged of by his uttered sentiments respecting prayer and sacrifices. "In sacrificing to ancestors, act as if they were present, tsi ju tsai, and do the same in offerings to the gods, tsi shen ju shen tsai. When I am not at the sacrifice, I look on it as still unperformed." He was not satisfied for it to be the act of a substitute. It is very common in China for the ancestral rites to be performed by another. Confucius sometimes allowed his son to take his place, but he would not consider himself as having discharged his duty in this case.

"Although he had coarse food," says another passage in the Lun yu, "he would not omit the offering of a part as a sacrifice," and the presentation of this to his ancestors on a small table in the centre of the dining hall, according to the ancient manner, was conducted by him with as much reverence as on the annual days of sacrifice. Commentators describe this as a constant remembrance of the source from whence he came, the authors of his existence. This virtue is called *pau pen*, recompence of the root. We might expect that, if enlightened by revealed truth, Confucius, who felt thus towards his forefathers, would have been a devout and grateful worshipper of God the Father. This feeling in his mind, rightly directed, would have led him to recognize the love of him who is the source of all being and all happiness.

But what were the thoughts of this sage respecting Heaven, and the Great Ruler of heaven,—for the phrases mean in Chinese the same being? Though he did not know God as Father, he knew Him as Ruler. Under the impression of the greatness and glory of Shang te, he said, "When a man has sinned against Heaven, there is no room for prayers." His sin is too great to be forgiven; and supplications addressed to the gods of the house,

* See Article on Chinese Ethics, by Rev. G. John, in the present number of this Journal.

either to the spirit of the kitchen or to that of the northwest corner, are quite thrown away. Chu fu tsī says, in commenting on this passage, 獲罪於天無所禱, that *tien*, heaven, is the same as *li*, reason. A recent Chinese author, Tsien Ta-hing remarks upon this, that the mention of prayer shews it to be not an abstraction, but a person that is meant. It would be improper to say, "Pray to reason." He quotes the Book of Odes as saying,—"Reverence the anger of heaven, fear the majesty of heaven." And he adds, if an abstraction, such as reason, is referred to, these expressions in ancient poetry would be without meaning. You may speak of reason as being that law by which heaven operates, but you must not say that heaven is identical with reason."

This view of the ancient Chinese belief respecting heaven is preferable to that of the pantheistic philosophers of the Sung dynasty, and there need be no hesitation in adopting it.

On one occasion when Confucius was sick, his pupil Tsī lu wished to pray for him to the spirits of heaven and earth. He replied, "Should this be done?" The pupil answered,—“Yes, for it has been said, by a writer on the subject of death, that prayers should be offered to the spirits above and the spirits beneath.” To this he replied,—“I have long ago prayed.” In so speaking, say the common annotators, he was far from meaning that he had prayed to the spirits referred to. What he intended to convey was the idea, that his life had been such as to require no prayers. His freedom from sins rendered prayer needless. This explanation is certainly in the spirit of the Sung philosophy. By other readers it is believed to mean that he actually prayed habitually to heaven. We would prefer to believe this. But at any rate the expression must not be taken as proving Confucius to have been a prayerless godless man. It does not relate to his feeling respecting Heaven, so much as to that respecting the worship of spirits then existing. He did not approve of the superstitious regard paid to the spirits by his countrymen. This led him to say, on another occasion, "Respect the spirits, but keep them at a distance." He held that heaven should be regarded with profound reverence, but that acts of prayer and sacrifice, such as were used in the worship of the inferior spirits, should not be performed. Only the son of heaven, the emperor, can sacrifice to heaven and earth, and accompany offerings by prayers to the supreme spirit of heaven and earth. For men of inferior position to worship heaven in this manner,

would be an invasion of the imperial prerogative, such as Confucius would visit with the severest censure.

The feeling that he had towards heaven may be judged of by the mode in which he speaks of *tien ming*, the decree of heaven. "There are," he says, "three objects revered by the 'superior man,' the decree of heaven, men of high station, and the words of sages. Life and death are determined by celestial decree; riches and honour, (Tsi-hia one of his disciples heard him say,) are assigned to men by heaven, **生死有命富貴在天**, *sī sheng yeu ming, fu kwei tsai tien*. He who does not know heaven's decree cannot belong to the class termed 'superior man.' The superior man, knowing the infallible justice of heaven, is not disturbed by the prospect of danger, or excited by the hope of accidental advantage. He is a reverential believer in destiny, so that he suffers patiently and never puts out his hand to seize unlawful gain."

The followers of Confucius have this doctrine of destiny to help them to bear the ills of life, but unfortunately for them it does not explain the triumphs of evil over good noticed in society. Not having the retribution of the future state to explain the inequalities of the present constitution of things, many a doubt must occur to them, when, for example, a brave and faithful general, like Yoh-fei, is disgraced and put to death by a wicked and crafty minister like Tsin-kwei. But they still hold to their doctrine and find a reward for Yoh-fei in the immortality of fame bestowed on him by posterity. For those who have not the Christian revelation, the best and noblest position they can take surely is, to trust firmly in the strict impartiality of moral retribution, in spite of the difficulties which cling to the theory. Confucius took this position. According to him, the good man must do what is right, and he will not be without the favour of heaven.

When he resided in the Wei country and took office, he visited the wife of the ruler. She had been guilty of adultery, and his disciple Tsi lu was displeased at his thus appearing to endanger his reputation. Confucius, after hearing his observations, swore an oath and said. "If I am wrong, may heaven crush me, may heaven crush me."

"No one knows me," he once said to his disciple Tsi-kung. "I neither murmur at heaven nor find faults in men. Aiming low in wisdom, I have risen high; heaven alone knows me."

When he heard the noise of thunder and wind at night, he was accustomed to rise, dress himself in full costume, and sit till the storm grew less violent. He thought it was his duty to pay attention to changes in heavenly phenomena of this kind and not to witness them unmoved. He feared and revered the invisible power above, and he thought that the sage, the *sheng jen*, should be as much as possible the copy of heaven exhibited before men's eyes. Therefore it was that he said, "I wish not to use words." His disciple Tsi kung remarked in reply, "If the master does not use words, the pupils will remain uninstructed." Confucius answered,—“Heaven uses no words, yet the four seasons proceed, 天何言哉四時行焉, tien ho yen tsai, si shi hing yen. The products of nature come into life, yet heaven uses no words, 百物生焉天何言哉, peh wuh sheng yen, tien ho yen tsai. Thus the sage if he is silent still shines like the sun and stars which move without sound across the firmament.”

Confucius, living before the period of controversy on several moral subjects, has left his statements upon them in simple forms of expression. It is controversy and the one-sidedness of moralists that have produced the contradictory modes of stating the doctrines of ethics that we find to exist in China and the west. Thus Confucius said of man's nature, that "it is near to virtue, but habit leads it far away from virtue." Within two centuries after his death there was great discussion among the *ju kiau*, or literati as to whether human nature was originally virtuous or vicious. The scholars as a class had accepted Confucius as their leader in opinion, though some dissented. Mencius and Siün tsī, held respectively the two opposite sides of this question, being the most influential Confucianists of their time, and they both did this without being considered positively heretical, though the view held by the latter has since been usually condemned.

So also, very soon after Confucius, contrary opinions arose on the mode of reconciling virtue as consisting of love to mankind generally, with virtue in the form of filial piety and the loyalty of subjects to their prince. The opinion of Meh tih was that all men should be loved equally, and that of Yang chu that every one should make selfishness his rule. Tsi mu, an author of that period, attempted to correct these views, by referring all actions to the doctrine of the virtuous middle. But, according to Mencius, he failed, because, drawing an illustration from the steelyard, he

had no sliding weight to employ in measuring actions, but instead of it a fixed centre. He did not attend to what Confucius had said respecting the moveableness of the centre, in holding to which virtue consists. He says, in the *Chung yung*, that it is a variable centre, or 時中 *shi chung*. Mencius himself was led by opposing views to speak of right as always collateral with benevolence. Where Confucius talked of goodness or *jen* only, Mencius added, on all occasions, the word *i*, rectitude, as a moderating principle that should ever be present in man.

The mode in which the orthodox writers of China have proceeded, in cases where Confucius has not uttered definite opinions, has been still to claim him as belonging to their party when they have expanded their system, and to maintain that their newly added doctrines were included in the teachings of Confucius though not particularly dwelt upon. The attributes of perfect wisdom, goodness and holiness, which they ascribe to him, require that all truths should be considered as known to him, though they had not been developed by circumstances into a concrete form.

The first public recognition of his title to perfect wisdom and holiness (*sheng*) and perfect goodness (virtue) is in the writings of Mencius. He himself disclaimed this title. His humility would not allow him to receive the designation *jen jen*, good man, or *sheng jen*, holy man. But according to Mencius his words, "I am never tired of learning, or weary of teaching," establish his title to be called both *holy* and *good* in perfection.

China honours her sages by the preservation of their places of burial; ancestral temples are built to them; while their descendants receive titles and emoluments, from the state. In travelling through the country, many a spot is found to have a special interest belonging to it, from the reminiscences clustering round it of the great statesmen, poets, sages or warriors of past times. The more remarkable, such as those which commemorate the acts of Confucius, are under the charge of the central government, or of persons specially delegated for that purpose; while the less important are cared for by the local government and the inhabitants of the neighbourhood.

Few literary Chinese enter the province of Shantung without visiting the tomb of Confucius. It lies about thirteen miles east of Tsi nan, the capital of Shantung, at the base of Ni shan, on the south side. Above it, on the hill side, stands the temple. The

beauty of the Si shui is mentioned in the Book of Odes. It is at present a winding stream about three yards wide at the point where the mound and temple are. Ni shan is the hill from which the sage derived his name. The grave stands a mile to the south of the temple, and the land it occupies contains 400 *mu*. The inhabitants, at the foot of the hill, are the posterity of the sage. At some distance is another hill called Kung tsi shan, hill of Confucius, where stood formerly the house in which he taught his disciples. His family residence was at Ni shan, and this was the building in whose walls was found, long since, a copy of the Book of History. The story of its discovery, one of the most interesting facts in the preservation of ancient books in China, is given in Medhurst's Shoo king, and other works; but the Ku wen shang shu, as afterwards published and generally accepted as a genuine exemplar of the Book of History, has been subjected to a severe ordeal of criticism, and proof given that it has assumed a form very different from that which it had when found in the ancient house wall and was published by Kung Ngan kweh.

The land which belonged to the sage near these two hills is still in possession of the Kung family, and cannot be alienated. The sepulchre is surrounded with a wall so as to look like a fort. The temple erected above the funeral mound, at a distance of a mile on the side of the hill, is like other ancestral temples in its general arrangement. The sage himself is seen in the centre on the northern side of the principal hall, called ta cheng tien, the hall of great accomplishment; while on his right and left are placed his disciples and subsequent sages, to the number of seventy-two; besides these there are three thousand ordinary disciples, such being the sum of the followers of the sage during his life.

In this temple all these sages, except the ordinary disciples, are represented by images of clay, not by upright slips of wood or tablets only, as is commonly the case in the temples of Confucius. The image of Confucius himself is of vast dimensions, moulded and painted to represent the ancient costume. On his shoulders he bears two globes, emblems of the sun and moon. His head-covering is that called Ping tien kwan, 平天冠, having suspended on it twelve strings of pears. He holds in his hand the slip of ivory called Chau pan, 朝板, or siang fuh, 象笏, carried by mandarins in the imperial presence, and by the emperor when he sacrifices to heaven. On the roof beams of the hall, over this

image, the bat is the principal carved ornament. This animal is used in Confucian architecture from the identity in sound of the word *fuh*, happiness, with the second part of the term for bat, *pien fuh*. Numberless living bats have made the roof of the temple their constant abode. An emperor of the Ming dynasty, noticing this circumstance, said, Wan fuh lai chau, Ten thousand kinds of happiness (or bats), come loyally before him. This sentence is inscribed on one of the monumental boards.

On the right of Confucius are two smaller images, those of Yen Yuen his favorite disciple, and Tseng tsi, author of the Ta hioh. On the left are two others, representing his grandson Ts'i si, author of the Chung yung, and the well-known Mencius.

Beyond these, and still smaller in size, are the seventy-two *hien jen*, virtuous men, among whom are found many of the personal pupils of Confucius, as well as a few carefully selected from the numerous Chinese philosophers down to the present Manchu dynasty. Before the Sung period, when the Sing li philosophy rose, there were but forty-three of those still retaining their place in this national pantheon of wise men. Twenty-three teachers of that philosophy took the place, by order of the Ming emperors, of as many who were degraded into the inferior rank of the three thousand. Four more were added in the Ming period, and two additional ones during the reign of the Manchus.

Tablets of the three thousand ordinary disciples of Confucius complete the list of the persons honoured in this temple.

The title of the sage himself is, Ch'i sheng sien sze Kung tsi, **至聖先師孔子**, the most holy ancestral teacher Confucius.

The next four are entitled fuh sheng, **復聖**, shuh sheng, **述聖**, chwen shing **傳聖**, and ya sheng, **亞聖**, respectively. All these titles imply proximity to the dignity of *sacred wisdom*, for that is the idea of the word sheng, but they all fall short of it. Fuh sheng, is the continuator of the sage; shuh sheng, the narrator of the sage's instructions; chwen sheng, traditional communicator of them; and ya sheng, he who is but little inferior to the perfect sage.

In the temples erected to Confucius in the larger cities, an image of the sage is sometimes used, but in those of the smaller, a tablet only is usually employed. In both kinds of temples the representative of the other wise men is commonly a tablet, but not necessarily so. Statues of them are also sometimes found.

The use of statues at all is an innovation, evidently derived from Buddhism. Their introduction was doubtless contemporary with the appointment of state gods, such as Kwan ti, the god of war, in the Sung and Ming periods. The extent of their use is an index to the feeling that the literati in the country have with respect to image worship. They would never have been thought of, but for the prevalence of idolatry in the Buddhist form, and they would have been regarded as of much more importance, were not the genius of Confucianism opposed to popular superstitions. The true adherent of this school looks coldly on image worship and doubts its efficacy. But it has so far triumphed, that a state polytheism has been established under a Taouist guise, and even in the most sacred edifices of the purely Confucian faith, traces of its influence are found to exist.

Among the inscriptions in honour of Confucius on monumental boards are, 德配天地, *teh p'ei tien ti, in virtue he is the equal of heaven and earth*; 道冠古今, *tau kwan ku kin, in doctrine he is superior to the ancients and moderns*; 萬世師表, *wan shī shī piau, the teacher and example of ten thousand ages*.

The wall in front of the gateway to these temples is called, 萬仞宮牆, *wan jen kung t'siang, the palace wall of ten thousand fathoms in height*. There is an allusion here to the words of a disciple of the sage, Tsi kung, who said on one occasion when asked if he were not as wise as Confucius, — "My wall is ten feet in height; that of the teacher is several tens of feet high. The grandeur of his dwelling is seen by all around. He who does not enter his door, fails to witness the real beauty of the ancestral temple, and the riches of the attendant officers. Few can enter it,—it is too grand and lofty for common eyes."

The gate to the temple of Confucius is called ling sing men, 櫺星門, *the gate of the star of literature*.

The temple is superintended by persons bearing the same family name, K'ung, his descendants. They enjoy an income annually from the treasury, and one of them receives the hereditary title of pei, 伯, the third in rank among the five classes of Chinese nobility. It is his duty to superintend the sacrifices in the temple in the spring and autumn.

In the course of last century, the emperor Kien lung presented an ancient incense urn of wood to the temple of Confucius. It

belonged to an ancestor of the sage of the seventh generation, and is therefore about 2,500 years old. It has seven words engraved on it in the great seal character, 作父考孟木工册, "Made for Fu k'au meng; the characters carved by the maker." Before this it was preserved in the palace.

The temple to Confucius at K'üh feu already described is one of six erected to him in various parts of the empire. They are distinct from the temples attached to the examination hall in each district and department, and which amount to 1,511 in number. Of these six temples that in Shantung as the birth place of the sage is the first in rank. The others are in Shansi (T'ai ngan), in Chekiang (Kü cheu,) in Kiangsu, in Sich'wen (Tseh cheu,) and in the imperial palace. That belonging to the province of Kiangsu is situated about twenty-five miles to the west of Shanghai in the neighbourhood of T'sing p'u. A descendant of Confucius removed his residence to this place in the sixth century and brought with him some relics of the sage, consisting of articles of clothing and a hat. These he placed in a grave and erected a temple beside it. Since that time it has been frequently rebuilt by other persons not of the K'ung family, the representatives of that clan having again disappeared from the vicinity.

The authorities for the life of Confucius are in the first place, the conversations known under the name Lun Yü. They consist of fragments originally written by the disciples of Confucius or by the pupils of those disciples. The work now known under this name and included in the Four Books, is believed to have been found hidden in the wall of the house of Confucius at the same time when the Shu king was discovered there. The principal compilers were probably indebted for their information to Yeu joh and Tseng seng, two of the most noted of the disciples of the sage. There was a Lun yü of the Tsi kingdom, and also of the Lu kingdom. This is the Lu Lun yü. The edition of Chu fu ts'i is universally employed as a school-book.

The second important work is K'ung ts'i kia yü, or Confucius' household talk. This work was composed it is said by K'ung ngan kwoh, and published with a preface and notes by Wang shuh. Both these men were noted authors of the Han dynasty. It is very valuable as an ancient book, though lapse of time may have partly disturbed the genuineness of its contents, and much of it is found in the next work here to be mentioned.

The third authority is the *Shi ki*, or "*Historical memorials of Sī ma tsien*." The biography given in this work is based on the two works just referred to. It is a brief abridgment of this biography that is placed at the commencement of the common edition of the *Lun yü*, used in schools and in the public literary examinations.

Information relative to the posterity of the sage, his temple, posthumous titles, his grave, etc., is found in particular works such as K'ung tseh pien, "*Complete account of the house of Confucius*," and smaller works of a similar kind describing temples to his honour in various parts of the country.



ARTICLE II.

THE ETHICS OF THE CHINESE, WITH SPECIAL REFERENCE
TO THE DOCTRINES OF HUMAN NATURE AND SIN.

BY THE REV. GRIFFITH JOHN.

Read before the Society. November 15th, 1859.

“THE question of morals divides itself into two distinct problems: 1st, What is the nature of the distinction between right and wrong in human conduct? and 2nd, What is the nature of those feelings with which right and wrong are contemplated by human beings? The latter constitutes what has been called the *Theory of moral sentiments*; the former consists in an investigation into the *Criterion of morality in action*. These two problems, and the essential distinction between them, must be clearly apprehended by all who are desirous of understanding the controversies which have prevailed on ethical subjects. Ethical theories can never be satisfactorily discussed by those who do not constantly bear in mind, that the question concerning the existence of a moral faculty in man, which approves or disapproves without reference to any further object, is perfectly distinct, on the one hand, from that which inquires into the qualities thus approved or disapproved, and on the other, from an inquiry whether that faculty be derived from other parts of our mental frame, or be itself one of the ultimate constituent principles of human nature.”*

Among the Chinese moralists, there are some who have confined their attention to the investigation and explanation of the “Criterion of morality in action;” and there are others who have addressed themselves principally to the question of “Moral sentiments,”—that is to the existence and nature of those feelings with which right and wrong are contemplated by human beings. Confucius 孔子, may be placed among the former. He was preëminently of a practical turn of mind, and seldom or never indulged in speculations on the moral and intellectual nature of man. Though he spoke much of benevolence, he said little or nothing of the benevolent affections as distinct from the private

* See Sir James Mackintosh's Dissertation on Ethical Philosophy.

desires. It seemed far more important to him to lay down, explain, and enforce a moral rule for the guidance of men in the various relationships of life, than to inquire into the nature and origin of moral sentiments. He described virtue as consisting in a *happy mean* between two vicious extremes. He maintains that there is a due medium between the vice of excess on the one hand, and that of defect on the other. Virtue consists in avoiding both extremes and observing the mean. The difference between the virtuous and vicious man consists in this,—the former lives in the due medium and the latter does not. The glory of the emperor Shun shone forth in his ability to use the *due medium* in all his administrations. The excellency of his favourite disciple Yen consisted in his choosing the *happy medium* for his portion, and never forsaking it. The truly virtuous man is he, who does not commence to tread the path of virtue and stop half-way, but follows on to the end of life. He, who in following the due medium can retire from the gazing world and live forgotten and unknown without regret, is a holy man. All sin and its consequent evils spring from the neglect of this golden rule. Confucius often mourned over the fact that so few were able to persevere in the path of life. The sage is exposed to the sin of excess, and the foolish and depraved to the sin of defect. “States,” said he, “may be equalized, offices and emoluments may be rejected, men may be courageous enough to tread on swords—all these though extremely difficult may be done, but the happy medium cannot be observed. The path of virtue, though near to all and easily known, is appreciated but by a few.”

The resemblance between this doctrine and that of the Peripatetics is very striking. Sir James Mackintosh, in speaking of the latter, says,—“The celebrated doctrine of the Peripatetics, which placed virtue in a medium between two opposite vices, was probably suggested by the Platonic representation of its necessity to keep up harmony between the different parts of our nature. The perfection of a compound machine is attained where all its parts have the fullest scope for action. Where one is so far exerted as to repress others there is the vice of excess. When any one has less activity than it might exert without disturbing others, there is a vice of defect. The point which all reach without collision against each other, is the mediocrity in which the Peripatetics placed *virtue*.”

Confucius' teachings on human nature are by no means articulate. He did not enter into particulars touching the elements of the intellectual and emotive parts of it. On the question of sin he is not explicit. He does not say distinctly that the nature of man is originally good; neither does he say that it is originally bad. In one passage he distinctly states that there is a *natural* difference between men, only that the difference which arises from nature is not to be compared with that which is effected by education. Some of the philosophers of the Sung dynasty allow, that the nature of which Confucius speaks, in the above passage, may be either virtuous or vicious. His theory *seems* to have been similar to that of Han Wun-kung, of which we shall have to speak hereafter. He *seems* to have believed that men radically differ from each other, and that some are born with a virtuous nature, and some with a vicious nature.

Tsī Sī 子思, the grandson of Confucius, is the reputed author of one of the Four Books, called the Chung Yung or the Invariable Medium. This small book is regarded by the Chinese as the profoundest treatise in the language on mental and moral philosophy. The greater part of it consists of quotations from the sayings of Confucius, but there are some parts which are peculiar to Tsī Sī himself. To understand many parts of this book, it is necessary to lay aside the commentaries of Chu fu tsī, and others, of the Sung dynasty philosophers. There are hundreds and probably thousands in China, at present, who hesitate not to say that these philosophers were rather the corrupters than the expounders of the doctrine of the sages. They formed a new theory—a theory such as never could have entered into the practical mind of Confucius, which they constituted their central point, and around which they caused Confucius, Mencius, Tsī Sī, and all the other sages to revolve. Were these great men to awake some morning, they would find it difficult to recognize themselves in the garb in which Chu fu tsī has been pleased to clothe them; we are quite sure they would be greatly puzzled to make any sense out of many of the utterances which he has put into their mouths.

Like Confucius, Tsī Sī makes the path of virtue to lie in a mean between two extremes. If the passions and affections are developed beyond the proper bounds, the sin of excess is committed; if they are not developed to the extent they should be, then

there is a sin of defect. If certain of the original principles of our nature are developed to such an extent as to check or overpower the others, or, if any are not developed sufficiently to harmonize with the rest, then disorder and discord prevail. If all are developed in such a way that each shall hit the mark, then complete harmony will be established, and the man will be morally perfect. The law of the *Invariable medium* is universal; it applies to all things and circumstances, and true virtue consists in observing it at all times and in all places without regard to consequences.

But Tsī Sī goes beyond Confucius, and maintains that human nature is in perfect harmony with this law. Man has not only the power of discovering it in practice, but he has it in him at his birth. He teaches, therefore, not only with the Peripatetics that virtue consists in the mean between two extremes, but also with the Stoics, that virtue, or moral rectitude, consists in living according to *nature*. According to Tsī Sī, nature is that which Heaven has decreed to be in man, and the true path of life lies in following it. This path cannot be forsaken for a moment; that which can be forsaken is not the true path. He would define vice as that which is unnatural, and virtue as that which is natural, to man. He did not use the word *shan* (goodness) in speaking of the innate rectitude of human nature, but the word *chung* (middle) which means the same, and is quite as expressive. He says, that the state of the passions before their manifestation may be called *chung*, that is, they are not inclined either way but are upright, and perfectly free from all depravity. Tsī Sī then seems to have been the first to propound the doctrine, *that all men at their birth are endowed with a nature that is perfectly good, and that virtue consists in following it implicitly*.

From the writings of Mencius we learn that these questions were greatly agitated in his time. There were many who ventured to differ from the opinions of Tsī Sī and Mencius, and to maintain theories diametrically opposed to theirs. Probably this was the reason which induced Mencius to give a more articulate enunciation of the doctrine of the *Innate Goodness of Human Nature*, and to explain it at length. The teachings of Confucius, as we have already seen, were not explicit on this point. He had left the question open to discussion. There were those who held the opinion that man does not possess any innate moral principles, but that the human heart is like a sheet of white paper upon

which anything may be written. They denied to the mind any decided bent either towards the good or the bad. According to their views, man is a creature of circumstances, whose moral character depends upon education. Mencius held that human nature is not only not bad but *positively* good; Seun tsī held that it is not only not good but *positively* bad; but this school denied both, and taught that it is neither the one nor the other but indifferent to both. It is like clay in the plastic hand of the potter, ready to be moulded into any shape or form he may choose. This doctrine may be considered a transition point between those of Mencius and Seun tsī. It agrees with and differs from both. It agrees with the former in denying the original depravity of human nature, and with the latter in denying its original goodness.

Kau tsī 告子, seems to have been the champion of this school in the time of Mencius. All that we know of him is through the writings of the latter. His motto was that, *Human nature is neither good nor bad, but indifferent to both*. "Man's nature," says Kau tsī, "may be compared to a tree, and benevolence and justice to an utensil; as the tree may be made into an utensil, so may human nature be made benevolent and just." Thus benevolence and justice are not innate principles of human nature, but the shape into which it may be carved. Again, Kau tsī says, that life is human nature, that is, it consists solely in the power of moving, knowing, and feeling, without a directive principle to determine its course. To the question what is it that determines the conduct of men, Kau tsī would doubtless answer, — Education, or the circumstances in which men are brought up. "The nature of man," says he, "is like a rushing stream; make an aperture on the east side and it will flow eastward; make an aperture on the west, and it will flow westward; as water has no choice between east and west, so human nature has no preference between virtue and vice."

This theory (though the most unphilosophical upon the whole) is not altogether devoid of truth. Kau tsī fixed his eye exclusively upon the influence of education, and regarded it as the sole agent in the formation of character. That it is a potent element, no one can doubt. "Train up a child in the way he should go; and when he is old, he will not depart from it." Still such a theory cannot account for many very important phenomena. For instance, how can this theory account for the fact that, many of

those who are brought up in the most favourable circumstances to the cultivation of virtue, turn out to be the vilest of the vile? How can it account for the fact, that men though plunged into the deepest depths of vice, still retain something within them which lifts up its voice in behalf of virtue, and condemns them as self-murderers; or the opposite fact, that men in spite of this monitor will not only do, but even delight in doing what is wrong? Such a theory can never account for this contradiction which every man feels in himself. Neither can it account for the deep sense of personal guilt which the transgressor carries about with him. Every man feels that he himself is accountable for his conduct, and not for the circumstances in which he is placed. Consciousness protests against every theory, which would reduce man to a mere lump of animated matter left to the disposal of events. A man may become a creature of circumstances, but he cannot become so without a sense of self-degradation.

Mencius 孟子 could not compare man to the clay of the potter, which may be made to assume any form in his plastic hand; but rather to a precious seed, which contains in itself the germs of all moral excellence, and can only be fully developed in circumstances congenial to its nature. The celebrated comparison of the mind to a sheet of white paper, would be regarded by him as altogether unjust. That of Professor Sedgwick would answer his purpose better. "Man's soul at first," says Professor Sedgwick, "is one unvaried blank, till it has received the impress of external experience. Yet has this blank, been already touched by a celestial hand, and when plunged in the colours which surround it, it takes not its tinge from accident but design, and comes out a glorious pattern."

Mencius recognised in man not only private desires, but also benevolent affections and moral sentiments. He maintained that every man possesses within himself a principle of benevolence, which induces him to pity and help others;—a principle of justice, which induces him to be ashamed of that which is shameful in himself, and hate that which is hateful in another;—a principle of propriety, which induces him to respect and reverence those to whom respect and reverence are due;—and a principle of wisdom, by which he may know and approve the right on the one hand, and know and disapprove the wrong on the other. These principles, according to Mencius, are not superinduced upon human

nature, but are innate and essential to it. "They are not smelted without and infused into my nature," says Mencius, "but I have them originally. He who is destitute of these principles is not a man; they belong to man's nature as really as the hands and feet belong to the body. Having them, men wrong themselves by saying that they themselves cannot live virtuously, and wrong the prince in saying that the prince cannot live virtuously." "Humanity," says Mencius, "is man's resting place, and justice is his path."

In opposition to Hobbes, who asserted that there is no such principle as benevolence in the nature of man, but that every act of benevolence springs from self-love exhibited in the shape of love of power, Butler maintains that the benevolent affections are disinterested. It is interesting to observe that Mencius propounds the same doctrine, and enforces it with arguments equally cogent. All men, says Mencius, have sympathizing hearts, or hearts which cannot endure to see others in distress without pitying them and desiring their relief. Suppose a man were to see a child on the point of falling into a well, would he not be filled with pity and grief? And why? Not because he wishes to secure the friendship of his parents, not because he desires to win the praises of his neighbours and friends, nor is it because he dislikes the cries of the child. Thus Mencius endeavours to show, that this feeling of compassion cannot be accounted for on any selfish principle, but that it finds its gratification in its object without any ulterior reference to self. I believe that the doctrine of the disinterested nature of the benevolent affections, had not been *articulately* stated by any of our English moralists before Butler. "Nearly all the philosophers regarded the appetites and desires, which look only to self-gratification, as modifications of self-love; and a very numerous body considered even the *social* affections themselves as nothing more than the produce of a more latent and subtle operation of the desire of interest and of the pursuit of pleasure."* It is remarkable that Mencius, upwards of two thousand years before Butler, should have maintained this theory with equal clearness and pertinacity. According to Mencius, the moral sensibilities are higher in rank than the natural or pathetic, and that the latter must yield to the former. According

* Mackintosh's Dissertation on Ethical Philosophy.

to him, injustice is more contrary to nature than even death. Life, says he, is what I desire, justice also is what I desire; but if I cannot retain both at the same time, then I will let life go and keep justice. Though I desire life, yet there is something more desirable than life; hence life is not to be secured by any means whatsoever. Death is a something that I hate, but there is something more hateful than death; hence there may be calamities which should not be avoided. If of those things which men desire there is nothing more desirable than life, then why might not men adopt any means whatever to secure it? If there is nothing more hateful than death, then why might not men employ any means to avoid calamities? There is then something more desirable than life and more hateful than death. 'This something all men have, and is by no means peculiar to the sage. The moral nature is spoken of by Mencius as the nobility which Heaven confers upon every man, and as being incomparably superior to all earthly dignities. The dignity which the prince confers, the prince can take away, but no one can be spoiled of his native dignity if he desires to keep it.

But Mencius does not only affirm that man is endowed with a moral nature; he denies that there is in man a positive principle of evil. If sin be committed, says Mencius, it is not to be regarded as the sinful production of a positive principle. In this, however, he does not materially differ from some of our most celebrated divines. Origen, Augustine, Leibnitz, Butler, Howe, and many besides have maintained that there is in man no *positive* principle of sin. "Augustine," says Müller, "is not the first who seeks to reduce the notion of evil to that of negation. Among the church fathers, this notion of evil makes its appearance in manifold forms." "The tendency of the will," says Leibnitz, "is essentially towards the good." "No passion," says Butler, "God hath endowed us with, can be in itself evil." Again, "There is no such thing as love of injustice, oppression, treachery, ingratitude; but only eager desire after such and such external good, which the most abandoned would choose to obtain by innocent means, if they were as easy and as effectual to the end." "I shall not," says Howe, "insist to prove that sin is no positive being; but I take the argument to be irrefragable, that is drawn from that common maxim, that, *omne ens positivum est vel primum, vel a primo*, all positive existence is either first, or from the first. And hence

sin being supposed only a defect, a soul that is only *defectibly* holy, might well enough be the cause of it; that is, the deficient cause."

But Mencius does not only deny that there is in man a *positive* principle of evil; but also maintains, that man is naturally perfect, and may, by simply following his nature, be as perfect as Heaven itself. Mencius says, that the root of the cardinal virtues is in the heart;—that he who thoroughly searches into his own heart, will know his nature;—and that he who understands his nature, knows Heaven. He did not even allow an innate principle of defectibility as a cause of evil. Man is not only devoid of any positive principle of depravity, but he is not wanting in any positive principle which may be necessary to enable him to reach the very acme of moral excellence. He is mentally and physically born to virtue, to which he is as naturally inclined as water is to flow downwards. As there is no water, says Mencius, which does not tend downwards, so there is no man whose nature is not good. The fact that men do what is wrong is no proof, according to him, that they are by nature bad. Just as water, by striking it, may be made to pass one's forehead; or by forcible means caused to ascend a mountain; so, says he, men may be caused to do that which is immoral. But it is not the nature of the water to ascend; even so, it is not the nature of man to do that which is evil.

But if man is radically good and perfect, what is the source of sinful actions? How is it that men are continually doing that which is evil? Mencius traces the whole to two sources—the negligence of the individual, and the influence of external circumstances. A piece of ground, says he, sown at the same time with barley, will not at the time of harvest be all alike. To what is the difference to be ascribed? Not to the seed, but external influences, such as, the difference in the richness of the soil, the nourishing influences of the rain and dew, or the care bestowed upon it by the hand of man. The force of the argument derived from the universality of human depravity, which Jonathan Edwards wields so powerfully, would not be felt by Mencius, because he would not allow the premises. In his opinion men are not universally bad. Though by far the majority are sunk in vice, still he thought that there were some grand exceptions, and in proof of which, he could point to the holy men and sages. Now

there is no *natural* difference between the holiest and vilest of men; they belong to the same family, and *naturally* are equally perfect. The moral law is common to all hearts, and it delights the heart just as food delights the palate. When asked if all men might become holy like unto the Emperors Yau and Shun, he replied—"Yes. Holy men and sages are superior to other men only because they consider and know the value of the treasure they possess, and keep it." "Humanity," says he, "is the heart of man, and justice his path; to forsake the right way and not walk in it, to let go the heart and not seek for it,—this is very sad. When men lose a fowl or a dog they know how to seek for them, but when they lose their heart they know not where to seek for it." That is, men pay more attention to, and are more anxious about such insignificant things than they are about their hearts; and from this depreciation and neglect of their true nature, springs most of the evil that is in the world.

Such is the theory of Mencius. The agreement of many parts of it with that of Butler is very striking, and many of the objections that some would make to it, might be made with equal propriety to that of the great moralist. The difference however is very important and palpable; and it would be interesting, did time permit, to point them out. We cannot deny but that there are traces of the divine image, which was originally stamped upon the nature of man, plainly discernible even now upon his soul. Granting that human nature is a ruin, still sufficient of the original superstructure remains to indicate what it primarily was, and for what it was intended by its Maker. To the many, it looks a mere heap of rubbish; but to the inquiring few, it will appear to be nothing less than the remains of a glorious building; intended by the master builder to have been the permanent abode of virtue and peace. Amid the moral disorder, the elements of order may be discovered, and their relative functions ascertained. The social affections are there, though often overpowered by the private desires; conscience is there, though often silenced by the clamour of the passions—never despoiled of its right to command, though generally too weak to enforce obedience. Mencius failed, not in maintaining that all this is true of human nature, but in taking it for the whole truth; and hence nothing can be more fallacious than his theory concerning it. He, however, is not the only philosopher that has done this. It is very common in trea-

tises on ethics, to ignore altogether the doctrine which teaches the innate depravity of human nature; and because of this, their description of it corresponds better with what it was when it received its constitution from its Maker, or what it should be, than what it actually is. "Nature is not now a machine that is merely apt to go out of order; it is out of order; so radically disorganized that it cannot be restored to the original harmony of its working, except by the interposition of the Omnipotence that framed it."* The teachings of Mencius are not only at variance with the plainest statements of Scripture, they cannot even harmonize with the most obvious facts of consciousness. They can never explain actions in which not only a weak but a wicked will, an inimical malicious disposition, a presumptuous lust for the forbidden, a bold resistless yielding up to crime, announces itself. Such a theory cannot account for the *non bonum*, much less for the evil and positive opposition to goodness which exists in the world. Mencius was wrong then, not in maintaining that man is endowed with a moral nature, but in ignoring the existence of an inherent principle of depravity.

Seun tsī 荀子 lived in the third century before Christ. Though there are but few at present who believe in his theory of Human Nature, still he is generally admitted to be a man of great ability and pure intentions. One of the twenty chapters into which his works are divided, is entirely devoted to the establishment of the doctrine that man's *nature is radically and entirely vicious*. He opens his discussion on the subject with the positive and broad assertion that, *the nature of man is bad and that its goodness is artificial*. This proposition he endeavours to substantiate by the following line of argumentation.

All the evils which exist in the world proceed from certain innate principles of human nature. Men's nature even at their birth has the love of gain, in consequence of following which, contentions and robberies spring forth, and benevolence dies; men even at their birth have the principles of envy and hatred, in consequence of following which, men injure and traduce each other, and sincerity and fidelity perish; men even at their birth have the lust of the eye and the lust of the ear, in consequence of following which, incontinence and confusion spring forth, and justice, propriety, and

* Wardlaw's Christian Ethics.

politeness are neglected. Hence the necessary results of following one's nature and complying with the passions are contentions, thefts, derelictions of duty, and retrogression into savagism. Seun tsī compares human nature to a crooked stick and a blunt knife; as the former must be softened by heat and unbent by the Yin kwo before it can become straight, and the latter need the grinding stone before it can become sharp; so men, because their nature is originally and entirely vicious, need teachers and laws to rectify them, and the moral code to establish order. Those who are transformed by teachers and laws, and guided by the established principles of propriety and justice, are called virtuous men; but those who act according to the bent of their nature, are called immoral men. Tsī sī and Mencius, as we have seen, placed virtue in following nature; Seun tsī places it in acting contrary to nature in every particular. He says, that Mencius did not attain to the knowledge of nature, nor examined into the difference between that which is natural and artificial in man. According to him, man by nature is wholly destitute of the principles of justice, propriety and goodness, of the social and benevolent affections. With Hobbes, he makes man a purely selfish being in his natural state; and his philosophical writings, like those of the former, might be read without reminding any one that the author was more than an intellectual machine. He says, when hungry to eat,—when cold to desire warmth,—and when tired to seek for rest, such is nature. At present, however, should a man be hungry he would not dare to eat first in the presence of his superiors, but will yield to them. And why? Not because it is natural but because he has been taught to do so. The respect which a son feels for his parents, and the younger for the elder brother, is not nature, but nature reversed.

As a proof of the innate and total viciousness of human nature, he adduces the fact, that much personal exertion is necessary to become virtuous. Spontaneity is an infallible criterion of the natural. What is not spontaneous is not natural. It is natural for the eye to see and the ear to hear, and both organs perform their respective functions without instruction or exertion. Such would necessarily be the case with respect to virtue, if man were endowed with a virtuous nature. But such in fact is not the case; on the contrary, men need exercise much thought ere they can understand what virtue is, and resolutely set themselves to seek

it ere they can find it. This is a proof that men are naturally destitute of innate moral principles.

The fact that men *seek* virtue, is another proof that they do not naturally possess it. • What men have not in themselves, they seek without; but they do not go out of themselves to seek for that which they have within. For example, the deformed desires to be beautiful, and the poor rich, on the one hand; but the rich does not desire money, nor the man of authority desire authority, on the other. Hence the fact that men seek to become virtuous, is only a proof that they are destitute of it by nature; because men do not desire to *become* what they *are*.

Again the very existence of holy men and laws proves the viciousness of human nature. If men's nature is originally good what could be the use of the holy kings of antiquity and the moral code. Being themselves by nature possessed of all the principles of rectitude and order, what could the holy kings add? If men's nature is good, the holy kings might have been dispensed with, and the moral code might be laid aside; but if human nature is vicious, then both are indispensable and deserving of the highest honour. Because the holy ancient kings knew that human nature is depraved, and what would be the natural consequence of the same, therefore they established the moral code, and formed laws and institutions for the purpose of straightening and rectifying it.

According to Seun tsī this natural depravity is as universal as man. The sage is nothing better, in point of nature, than other men. The holiest of men and the most vicious meet here. Just as Mencius asserts the universal goodness of human nature, so Seun tsī, without the least qualification, proclaims its universal vileness. The holy emperors Yau and Shun are identical in nature with the infamous emperor Kieh and the robber Chih. The nature of the virtuous and the wicked is one. Heaven, says Seun tsī, has no favourites. It is not because heaven had any partial liking for Tsung tsī and Ming tsī (two of Confucius' disciples) that they surpassed all others in filial piety; they became famous for this virtue by reason of their extraordinary exertion. And such is the case with kingdoms. Heaven has no partiality for one kingdom more than another, and it is not on this account that one excels the other.

But does not this doctrine tend to degrade the sage and other

virtuous men? No, says Seun tsī, but the contrary. If you say that men's nature is good, then what honour do you confer upon the sage? But if you say that men are universally depraved by nature, then the sages derive honour from the fact that they surpass other men, and are able to invent laws and establish institutions which tend to reform men and preserve order.

But if men's nature is radically and wholly vicious, whence came justice and propriety, or the moral code? Whatever principles of justice and propriety may exist, they are nothing more than the artificial productions or inventions of the sages, and by no means the offspring of human nature. Just as a vessel is the production of the potter's invention and not of his nature, so the moral code is an artificial production of the sage. As the former has to think out the art of making utensils, so the latter has to think out the art of making moral codes. Thus, according to Seun tsī, necessity is the mother of invention in morals as well as in everything else. There is a certain want; the potter sets about thinking how this want may be supplied, and a cup or a plate is the result of his cogitations. Human nature is bad; ruin is the inevitable consequence of allowing men to follow their natural dispositions; the sage sets about thinking how this nature may be reformed, and these dispositions curbed, and the result of his cogitations is the *moral code*. Now though men do not possess a *moral* nature, still they are endowed with the power of knowing and acting, and hence may learn what is right, or rather useful, and act accordingly. The sage has the power of accumulating ideas and to invent, and all men are able to understand his teachings and live according to his precepts. Men's advancement in intellectual and moral excellency depends on their own exertions. If they will apply themselves to learning, exert their mental faculties, and give themselves up to good works without ceasing, they will become extremely intellectual and perfectly virtuous. Seun tsī maintains that all men may become morally perfect, and that the reason why they are not so is that they *will* not. "All men," says he, "may become holy, but all men cannot be induced to become holy. The immoral man may become virtuous, but he *will* not, and the virtuous man may become depraved, but he *will* not;" there is nothing but the will that prevents them from exchanging position, and hence the truth of the saying, "the pedler may become a sage like unto the holy emperor Yu."

Such is the doctrine propounded by Seun tsī. He stands on the opposite pole to that of Mencius, and is nearly as far from the truth. As the doctrine of Mencius fails to account for one class of phenomena in the moral nature of man, so does that of Seun tsī fail to account for another class equally important and real. The former fixed his eye exclusively on one side of human nature, and mistook it for the whole; and the latter fixed his eye on the other side exclusively, and mistook it for the whole. Whilst we feel that there is much truth in what they both teach, still our nature spurns either as the whole truth. The same Bible which states that "the carnal mind is enmity against God," states also that "when the Gentiles, which have not the law, do by nature the things contained in the law, these, having not the law, are a law unto themselves." In the Scriptures, we find all that is true in their teachings recognized and taught, whilst their errors are entirely excluded. In the Bible alone do we find our nature searched to the bottom, and all that is great and all that is miserable in it represented, together with the reason of the one and the other. "Is it not clearer than day" says the deep-thinking Pascal, "that we see and feel within ourselves indelible characters of excellence? and is it not fully as clear, that we experience every moment the effects of deplorable baseness? What else, therefore, does this chaos, this monstrous confusion in our nature, but proclaim the truth of these two estates, and that with a voice so powerful, as is always to be heard, and never to be resisted. Behold the present estate and condition of men! On the one hand, they are carried towards the happiness of their primitive nature, by a powerful instinct still remaining within them; and, on the other hand, they are plunged in the miseries of their own blindness and concupiscence, which is now become their second nature. Know then, proud mortal, what a paradox thou art to thyself. Let thy weak reason be humbled, let thy frail nature compose itself in silence; learn that *man* infinitely surpasseth *man*; and let thy own history to which thou art thyself an utter stranger, be declared to thee by thy Maker and thy Lord." Seun tsī then was right in proclaiming the universal innate depravity of human nature as a profound source of misery, but decidedly wrong in denying to man a *moral* nature as an innate principle of greatness. As a moralist he may be classed with Paley and Bentham. In China, Mencius is the moralist of conscience, and Seun tsī that of utility.

Yang tsī 楊子 lived about the commencement of the Christian era. His theory of human nature, like that of Seun tsī, has never been popular in China; and, for ought we know, is believed in by none of the literati of the present day. As a man, he does not stand so high, in the estimation of the nation, as Seun tsī. In treatises on human nature, both names are generally coupled together, and equally branded as heretics. Yang tsī seems to have been influenced by both the writings of Mencius and Seun tsī. He probably felt, that there was some truth in what both these philosophers had said, and that neither was to be wholly rejected. Mencius had shown very plainly that man possesses a moral nature, —a something that lifts up its voice in behalf of truth and justice,—a something that gives its verdict for the right even when the wrong is pursued,—a something so deep-rooted in man, that he cannot shake it off at his will and pleasure,—a something very different from his garments, which he may put on or throw off at his convenience. But though he had plainly done all this, still he had completely failed to account for and explain the phenomena of sin. Seun tsī, on the other hand, had proved very clearly that there is a strong and universal bias to sin in men;—so strong, that nothing but laws and punishments can restrain men from proceeding to the greatest lengths of vice, and that the most resolute determination and undaunted perseverance are necessary to enable them to rise in the scale of moral excellence;—so universal, that even holy men and sages are not by *nature* exempt from it. Though Seun tsī had shown all this very convincingly, yet he had failed to account satisfactorily for the existence of a moral law, and to prove the non-existence of a moral sense. Yang tsī steps in, in the character of an eclectic, adopts the positive, and rejects the negative side of each of these two extreme theories. And hence he announces the doctrine that, *human nature is both good and bad, and that both elements are mixed in it*. There is something in every man that is radically good, and something that is radically bad; and the difference between men consists in this, namely, that some cultivate the good part of their nature, and others the bad. He who cultivates the good side of his nature will make a good man, and he who cultivates the vicious side of his nature will become a vicious man. Thus, Yang tsī fully allowed the existence of this mysterious contradiction of our nature, though altogether unable to account for it. He did

not write much (at least we do not know that he did) on this subject; but the few sentences he did write, evince a deeper insight into the moral nature of man than that of his predecessors, and make us sincerely wish, that he had written much more, and explained his views at length.

Han Wun-kung 韓文公 of the Tang dynasty, lived in the commencement of the ninth century. He is famous as a writer and scholar; and his name is celebrated as one of the strongest public opponents of Buddhism in his time. He advanced a theory of his own, by which he proposed to account for all the phænomena of human nature. He does not seem to have been satisfied with any one of the preceding theories. There are many important facts, which he thought, could not be satisfactorily explained by either. He says that human nature may be divided into three grades or orders, namely, the upper, the middle, and the lower. The upper is good, without the least mixture of evil; the lower is entirely depraved, without the least mixture of good; and the middle partakes of both, and is capable of becoming exclusively either. Those who are endowed with the highest order, have all the five virtues and are *perfect* in each; those who are endowed with the lower, are destitute of all, and are naturally inclined to oppose them; and those who are endowed with the middle order, *possess* them all, but are *perfect* in none. Touching the seven passions the same difference exists. From this it will appear, that he believed in the *limited* application of the doctrines of Mencius, Seun tsī, and Yang tsī, and only denied the *universal* application of either. Each is true of a certain class of men, and each false of universal man. Mencius, says he, in maintaining that human nature is good, Seun tsī in maintaining that it is bad, and Yang tsī in maintaining that it is both good and bad, are all wrong; they seized upon one aspect of the truth only, and missed two. As a proof that all are not naturally good, he mentions certain individuals, of whom it had been predicted at their birth, that they would bring themselves and their families into ruin by their wicked conduct. As a proof that all are not naturally vicious, he names others concerning whom it was known, even at their birth, that they would lead virtuous lives. And as a proof that all men are not naturally good and bad, he mentions the sons of Yau and Shun becoming vicious, though the children of holy men; and Shun and Yu becoming holy men, though the

children of depraved parents. If the sons of Yau and Shun were naturally endowed with a principle of goodness, it could not but have been developed under the genial influences of such holy parents; and if Shun and Yu possessed an original principle of depravity, it could not but have manifested itself in the pernicious circumstances in which they were brought up. Thus, according to Han Wun-kúng, men are born into the world with natures morally different, and this difference will account for all the diversity witnessed among them. His doctrine is as pernicious in its practical tendency, as it is absurd in theory. As the masses belong to the lower grade, it regards them as hopelessly lost to reason and instruction. It takes away from them all hope of ever being able to advance one step in the path of virtue. As their moral condition is unchangeably fixed by a decree of Heaven, it would be folly in them to aim at self-improvement. Though the upper grade may become brighter and brighter by means of education, and the middle grade ascend or descend according as they cultivate the virtuous or the vicious part of their nature, the lower grade are irreparably lost to the transforming influences of instruction, and can only be coerced or frightened by means of laws and punishments. The upper and lower orders cannot exchange position; the former cannot descend, nor the latter ascend.

The philosophers of the Sung dynasty 宋儒 are now to be considered. "The Chinese philosophical literature," says Mr. Meadows, "divides itself into two epochs. The first began with Confucius and ended with Mencius; and the second with Chén tsī who commenced his labours about A. D. 1034, and ended with Ch'ú tsī who died in A. D. 1200. The writers of the second are often mentioned as the philosophers of the Sung dynasty. Among these Ch'ú tsī the closer of the second epoch stands foremost. From the middle of the fifteenth century until now, a period of six hundred years, his views of philosophy, morality and politics have become supreme in China. Kang hi in an early period of his reign openly ascribed to Ch'ú tsī the merit of having, after full consideration of the works of his predecessors, definitively fixed the national views of philosophy. Hence for the last 150 years the authority of Ch'ú tsī has been, if possible, more exclusively paramount than before. During that period, more than ever, it has been by his eyes that the Chinese have read their ancient Sacred Books. Now even supposing, what is a supposition of

the wildest improbability, that any Occidental could, by direct study of the ancient Sacred Writers, attain a juster comprehension of their meaning throughout than Ch'ú ts'í, the result would be valueless except in an antiquarian point of view."*

We have already stated that, in order to understand many parts of the Chung yung, it is necessary to lay aside the commentaries of Ch'ú ts'í and others of the Sung dynasty philosophers; and that these philosophers are regarded, by not a few of the very *best* scholars, as the corrupters rather than the expounders of the doctrines of the sages. We regret to find ourselves at variance with a writer whose opinions, on Chinese matters, are so justly entitled to have much weight, as those of Mr. Meadows are; but, it is our conviction that there are thousands in China, who do not read the Sacred Books with the eyes of Ch'ú ts'í, but on the contrary, think for themselves, and find in them doctrines very different from those imputed to them by him. Not many days since, we were told by a very respectable native scholar from Suchou, that Ch'ú ts'í never understood the doctrines of the sages. This gentleman is only a member of a school which, we have every reason to believe, is yearly waxing stronger in numbers and influence. Neither do we think that the result, of attaining a juster comprehension of the meaning of the Sacred Books of the people, would be valueless, except in an antiquarian point of view. Whatever value they attach to the labours of Ch'ú ts'í, it does not exceed that of an expounder; and their faith in him, as such, depends upon the correctness of his expositions. Prove to them that his views, on any passage or subject, do not harmonize with those of the sages, and they will not hesitate as to which to choose. Now it can be proved almost to a demonstration, to an intelligent Chinaman, that his views on very important points—such as the *non-personality* of the Deity, do not agree with the teachings of antiquity; and this is of great *practical* value to those who are interested in the moral and spiritual advancement of the people. It is an interesting fact, that one of the doctrines which the new school hold is the personality of the deity, in opposition to the pantheistical teachings of the philosophers of the Sung dynasty; and that the arguments, which they adduce to establish this doctrine, are principally drawn from their ancient Sacred Books.

* The Chinese and their Rebellions.

The theory of Human nature in relation to the doctrine of *Sin*, which these philosophers maintain, is very different from anything that had been propounded by the holy men and sages. It was a clever attempt to harmonize all the conflicting views of the preceding orthodox and heterodox writers. Though they professed to hold the doctrine of the innate goodness of human nature, we shall find that, in *reality*, they were nearly as far from Mencius as from Senn tsī. In order to understand the views which they entertained on this subject, it is necessary to pay special attention to the meaning of the word *sin* (nature) as employed by them, and its relation in man to the *k'í* (the material principle). All existences, according to these philosophers, are reduced into or based upon two principles—the material and the immaterial. Whether the former is evolved out of the latter, or, whether both have eternally coëxisted as two essentially distinct entities, is difficult to determine. There are passages which *seem* to teach the former doctrine; and there are not a few which *seem* to teach the latter. For our present purpose it is by no means necessary to determine which is the correct view, as both are regarded quite distinct, though united, in man.

The immaterial principle is the fixed order of the universe, or the law which pervades all things. By means of matter and its inherent law, all things—both animate and inanimate,—have been produced and formed. Now, *sin* (nature) is merely this all-pervading immaterial principle, as it exists in man and all animated beings. When asked what sort of a thing nature is, Ch'í tsī replied, that Chung tsī's definition that, *nature is the immaterial principle*, is exceedingly good. *Nature*, says he, is the immaterial principle, and the immaterial principle is *nature*; they are essentially one thing; only it is necessary to know why it is sometimes called nature, and why sometimes called the immaterial principle. Again, he says, that benevolence, justice, propriety and wisdom, are all contained in nature. Chung tsī had said that nature was nothing but these; but Ch'í tsī says that, though these may be considered the principal elements of it, still they do not exhaust it, and that it embraces all things. Nature, being the immaterial principle, is without figure and form. In man, benevolence, justice, propriety, and wisdom are nature; but these are mere principles without form and figure, hence nature is so also.

What is decreed by Heaven (nature), is united to the material

principle, and both are essential to the production of things. Ch'ü ts'i says, that where either is wanting, the production of things cannot take place. If the material be wanting, the immaterial will be destitute of a resting place; and if the immaterial be wanting, the material will be destitute of the principle of life, intelligence, &c. Man is thus a being compounded of two principles—the one an entity, and the other a law. On the mode of their union Ch'ü ts'i says but little. It is evident that he altogether ignores the existence of a spiritual entity in which the immaterial principle inheres. The immaterial principle is perfectly good, and hence the *nature* of man, being identified with it, must be so too. This is a fundamental position, and is maintained very tenaciously by these philosophers. The nature of man, says Ch'ü ts'i, is entirely good, and though the actions of the emperors Kieh and Chen were savage and wicked in the extreme, still they knew that they were wicked; if I desire to act thus, there is no help, it is lust that carries men away. Since the immaterial principle in man is good, whence the evil? To this Ch'ü ts'i replies that, what is called evil has its root in the material principle. The immaterial principle in man is originally destitute of all perverseness, but the material is not so. In the latter there is the obscure and the bright, the thick and the thin; and the character of the being, whether vegetable, animal, or man, depends upon the quality of the material principle which he receives. The immaterial principle may be compared to pure water, and the material to a pond; if the water flow into a clear pond, the water will be clear; if into a muddy pond, the water will be muddy. The pure part of the material principle is obtained by men, and for this reason they may become perfect in wisdom and goodness; the coarse part is perverse and those that obtain it are dull, such as birds and beasts. It is because men receive the purer part of it, that they differ from the brute creation; as to the immaterial principle, it is the same in both. Even in brutes, where the material presents an aperture, there is a partial manifestation of the indwelling rational and moral nature; and hence the reason why some are called just brutes, and some benevolent brutes.

Among men, some receive the pure and thick part of the material principle, and some the coarse and thin; and this will account for all the diversity observable in them. Those who obtain the thick and bright quality, are born intelligent and virtuous;

and those who receive the thin and coarse, are born dull and vicious. Those who obtain the bright and not the thick, will be intelligent but not virtuous; and those who receive the thick but not the bright, will be virtuous but not intelligent. In those who obtain the purest and thickest quality, the immaterial principle is like a pearl in clear water; in those who receive the coarse quality, it is like a pearl in muddy water; in birds and beasts it is like a pearl in a very foul place.

Thus, according to this philosophy, the mental and moral nature in all animated creation, is striving to manifest itself, and is only prevented from doing so *fully*, by the *passive* resistance of the material. The way is open in one direction, but shut up in another; and because of this, says Ch'ü ts'ü, some are expert at trade but cannot learn books, and some are eminent for filial piety but are wanting in due respect to others. These are only *partial* manifestations of the all-perfect nature, occasioned by the intervention of the imperfect material principle. The former is like the sun and moon, and the latter like the intercepting cloud. The former is like a ball of fire, and the latter like unto ashes; as soon as the ashes split, the fire will shine forth. Matter, then, is the source of all the vice and stupidity that is in the world; not, however, as an active power militating against wisdom and goodness, but simply as a passive obstruction to their perfect manifestation.

But these philosophers speak of another nature besides the all-perfect one which we have been describing; and which they denominate K'í ch'ih ch'í sing. Ch'ü ts'ü defines it to be the nature which results from the union of the immaterial and the material principles. When, says he, the *nature* conferred by Heaven is spoken of, the immaterial principle alone is referred to; but when the 氣質之性 K'í ch'ih ch'í sing is spoken of, it is the material principle *united* with the immaterial that is referred to. The doctrine of the K'í ch'ih ch'í sing was first introduced by Chang ts'ü. The elder Chung ts'ü says that, to discourse of the immaterial principle and not of the material is not complete, and to discourse of the latter without the former would not be intelligible. Because of this, says he, Mencius' doctrine is incomplete, inasmuch as he spoke *exclusively* of the nature conferred by Heaven, and did not take into consideration the material principle.

Now of this compound nature, or the nature conferred by Heaven as united to the material, it is right to say that it may be

bad. Just as water which in the fountain is pure, and even in the muddy pool may, abstractedly considered, be said to be pure, is still called muddy; so the immaterial principle, or the true nature of man, may be said to be evil, as soon as it is joined with gross matter. In this Ch'ü ts'í felt that he was bordering upon heterodoxy, and in danger of coming into collision with Mencius. "If we say that *virtue* is originally nature, but still that *vice* cannot be said not to be nature, I fear," says an enquirer, "that what we are saying will not agree with what Mencius has taught." In reply, Ch'ü ts'í said—"This part of the subject is exceedingly difficult, and cannot be understood at once; formerly I had my doubts as to the harmony of these two sentiments, but after much thought I have been able to understand the subject clearly, and am now satisfied that there is no error, and that they perfectly agree."

The K'í ch'ih ch'í sing though bad may be reformed, and this is the work of instruction. Though the material is inferior to the immaterial, still it cannot be governed by it. The former is hard and coarse, the latter is soft and fine; and hence the former often gets the mastery. Now, the object of instruction is not to rectify the immaterial principle in man, but to enable it to overcome the material; it is to lift up the pearl from the foul place, and wipe it clean. By resolute purpose and indomitable perseverance, the superior part of this compound nature may obtain the victory; the inferior may be rectified; and the due medium may be obtained.

Sin, however, in the Scriptural sense, is not recognized in their system. The contrast of good and evil, according to their view, resolves itself into a difference in degree. The immaterial principle has different degrees of manifestation, according as it is obstructed or not by the material; if the degree be a higher one, the result will be *virtue*; if the degree be a lower one, the result will be *vice*. Chung ts'í says, that what is called vice is not really vice, but a defect or an excess of the good.

Ch'ü ts'í ascribes great honour to Chang ts'í and to the two Chung ts'í for propounding the doctrine of this compound nature; and says, that it is the only complete one. Their merit, he says, is very great among the disciples of the holy men and sages, and they deserve the sincere thanks of all future scholars. Before their time none had spoken in this way. For instance, Han Wun-k'ung in ascribing to the nature conferred by Heaven three grades,

did not distinguish between the material and immaterial in man. Of this nature, he asks, how can there be three grades? This is the *same* everywhere and always. Again Mencius, in speaking of the radical goodness of human nature, refers exclusively to the nature bestowed by Heaven, and hence much was left by him which required to be explained. Then, Seun tsi and Yang tsi, in speaking of human nature as being radically bad and both good and bad, did not discriminate between things that differ. If this doctrine had appeared earlier, there would have been no room for all this diversity of opinion. It has both head and tail, and by the establishment thereof, the doctrines of previous philosophers are done away with.

From the above sketch it will appear, that the doctrine of the Sung dynasty philosophers, though differing from all the preceding ones, is still indebted to them *all* for its existence. Had Seun tsi, Yang tsi, and others not appeared, they would have maintained a very different theory; probably, they would have adopted the doctrine of Mencius intact. By these so-called heterodox writers, the doctrine of *innate depravity* had been too firmly established to be ignored; and hence their attempt to account for the fact, in such a way as would harmonize with their doctrine of the *innate goodness* of human nature. In this theory of human nature, the innate depravity of *man* is not denied, but only transferred from what may be regarded as the real *ego* of man, and placed in that which is external to it; and this is its weak point. Christ traces Sin to the heart—the inmost centre of life—the seat of the inclinations and self-determination, and just for this reason it is able to make man unclean. This theory, on the contrary, maintains that it comes from a sphere of life which is an external one in relation to the real *ego* of man; from which it follows, that it is not able to effect impurification of the entire man, but that it is more to be considered as an earthly impurity thrown on from without, by which the beaming forth of the true form of the inward life may be prevented, and its phenomena disturbed. Sin then is no longer our act but our misfortune; a lamentable disease, which has its ultimate ground in the strength of the material, and in the weakness of the immaterial, principle. Let the consciousness of each individual testify which harmonizes best with its phenomena, — whether the teachings of Christ, or those of the Sung dynasty philosophers.

Such then are the views, which have been held by the Chinese, of Human nature and Sin; and it is very interesting to notice, how thoroughly the question has been sifted. It proves that the Chinese are a thinking people, and that some of the most abstract and perplexing questions have not escaped their notice. At present, the doctrine of Mencius, and the doctrine of Mencius as explained by Ch'ü ts'í, are almost universally adopted.* They believe with Mencius that human nature is radically good, and that there is no principle of evil in man; or, with Ch'ü ts'í, that whilst the immaterial principle is radically and wholly good, the material may be bad and become the cause of vice. And hence the reason why they will not allow that the *nature* of man is or *can* be bad, whilst they do not hesitate to say that *man* may be so.

* In the *T'ung i Lúh* there are some very ingenious remarks on the doctrines of human nature and sin, by Ching Yau-tien, an author of the present dynasty. His views are those of Ch'ü ts'í. With him, he maintains that the immaterial principle is radically and unchangeably good,—that the material may be bad, and does often become the source of vice.

ARTICLE III.

ON THE COSMICAL PHENOMENA OBSERVED IN THE NEIGHBORHOOD
OF SHANGHAI, DURING THE PAST THIRTEEN CENTURIES.

By D. J. MACGOWAN, Esq., M. D.

Read before the Society, December 23d, 1858.

A PHRASE, analogous to that which the Father of History applies to Egypt, is descriptive of the region where we now reside. If Egypt was the "gift of the Nile," this reclaimed plain, once a marsh, is the gift of the nobler Yangtsz. At one period this region was the delta of the Great River; the numerous water-courses that intersected it, were so many *bayous*, such as characterize the embouchures of the Mississippi. The mineralogical character of the formation, on which this alluvial flat reposes, is a question of considerable interest in reference to the subterranean forces of which it is the seat; but whether it rests immediately upon granite, which forms the basis of the nearest mountains; or mediately upon new red sand-stone, of which some of the adjacent hills are composed; or upon limestone, which is found protruding at the Great Lake (Tai Hú), it is impossible for us, without more information, to determine.

On the present occasion, I merely invite your attention to a record of cosmical and other phenomena of this region. And I would premise here, that according to Chinese cosmogony, man is so intimately identified with the powers of nature, being what they term "a miniature heaven and earth," that, in order to be conversant with the science of civil government, one must study celestial and terrestrial phenomena,—as the deviations from the course of nature are all more or less portentous of evil, excepting a few, which are regarded as felicitous. Indeed, in high antiquity, they professed to have a revelation in a tabulated form, procured from the carapace of a tortoise, by which those who observed the weather and seasons, might form correct opinions on the political aspect of the times. In the Shu King, under the section Hung Fan, or Great Plan, this doctrine is summarily laid down thus:—

SEASONABLE RAIN,	indicates <i>Decorum</i> .
EXCESSIVE RAIN,	indicates <i>Dissoluteness</i> .
OPPORTUNE FINE WEATHER,	indicates <i>Good Government</i> .
LONG-CONTINUED DROUGHT,	indicates <i>Arrogance</i> .
MODERATE HEAT,	indicates <i>Intelligence</i> .
EXCESSIVE HEAT,	indicates <i>Indolence</i> .
MODERATE COLD,	indicates <i>Deliberation</i> .
EXTREME COLD,	indicates <i>Precipitation</i> .
SEASONABLE WIND,	indicates <i>Perfection</i> .
CONTINUED TEMPEST,	indicates <i>Stupidity</i> .

From these views, which have great influence on the minds of the Chinese, it happens that a fuller account of subterranean action, of meteorological wonders, and the like, are found in their records, than among the annals of any other people anterior to the birth of meteorology as a science.

The authority for the occurrences about to be detailed in this essay, are the Topographies or Miscellanies of Sungkiang and Shanghai. These works, the *Chi* or Miscellanies, so numerous in China, have attracted too little attention from foreigners, chiefly perhaps because they seem to contain a mass of dull and useless matter. Nevertheless they do contain also much that is of real value. The chapters on Natural history will generally, and those on Calamitous occurrences will always, repay investigation, if perused with discrimination and patience. At first sight, there is so much of the marvellous and fabulous, that the student is likely to be repelled from their perusal, but soon he may discover that their apocryphal character is due generally to the misapprehensions and erroneous explanation of the observers.

In a former communication to this Society, I took the liberty of calling attention to the importance of forming a Chinese Library, which should contain a complete collection of these Miscellanies. Of the numerous works of this description, that have come under my observation, the half dozen, I am about to name, may be taken as a fair specimen.

The *fu* or prefecture of Sungkiang, in which Shanghai is situated, forms the right lip of the embouchure of the Yangtsz. It extends from north to south above 173 *li*, and from east to west 190 *li* more or less, of which some 30 *li*, has been recently acquired from the sea. It is divided into eight *hien* or districts. The subjoined statistics have been derived from the Miscellanies of five

of these districts, viz., Shanghai Nanhwai, Funghien, Tsingpu, and Lau, together with that of the entire prefecture Sungkiang. I have not yet been able to procure the works on the districts of Chuensha, Hwating, and Kinshan; but as the volumes on Sungkiang prefecture comprehend those districts, the record may be considered nearly complete. One explanatory remark more, allow me here to add. It will be observed that the later centuries seem crowded with incidents, while comparatively few occurrences are noted in earlier ages. It must not be inferred that the phenomena have been of more frequent occurrence in modern times;—the difference is doubtless due to greater care in observing and recording them, and also perhaps to the fact that sometimes, in new editions of these works, selections only have been given.

For the sake of convenience, these records, about to be laid before the reader, may be arranged into four sections, in the following order of phenomena,—(1) Subterranean, (2) Meteorological, (3) Botanical, and (4) Zoölogical; each of these larger divisions will be divided into sub-sections; and each occurrence or phenomenon numbered.

SECTION I. SUBTERRANEAN.

Sub-section 1. EARTHQUAKES.

The oldest of these records dates back only about four centuries; I will specify the *year, moon, day* of each occurrence, and its *direction*; then subjoin the *remarks* of the native chroniclers; and thereupon add such brief *notes* of my own, as may seem necessary for the elucidation of our subject.

No. 1. A. D. 1466; 4th moon. Great motion of the earth—an earthquake—was observed, and white hairs were seen.

No. 2. 1509; 9th moon. An earthquake, which extended over seven prefectures, including that in which Nanking is situated.

No. 3. 1506; 9th moon. An earthquake, preceded by a wind like fire coming from the south-east; a few days after this, a meteor was observed.

No. 4. 1525; 2nd moon, 15th day. An earthquake at night.

No. 5. 1550. White hairs issued from the ground at Tsingpu.

No. 6. 1552. White hairs, like horsetail hairs, with a yellowish hue, about a foot long appeared.

No. 7. 1584; 1st moon. Implements and furniture rattled in the houses, and blood fell at Tsingpu.

No. 8. 1596; 1st moon. W. to S.E. A drum sound in the sky; houses shook several successive days; white hairs issued on the sea coast.

No. 9. 1629; 12th moon. N.W. to S.E. A great motion; noise as of wind and rain; houses were shaken.

No. 10. 1648; 4th moon, 3d day. White hairs issued from the earth, after a storm.

No. 11. 1669; 6th moon, 17th day. N.W. to S.E. Houses shaken; canal waters bubbled for two hours; and white hairs issued from the earth.

No. 12. 1670; 6th moon. White hairs five or six inches long produced from the ground.

No. 13. 1673; 7th moon. Many shocks of earthquakes at different times during this month.

N. B.—The following Nos. of this record are from the author's private notes.

No. 14. 1846, August; S.W. to N.E. Midnight, a shock of considerable violence—felt at Ningpo also. The weather had been remarkably dry and hot.

No. 15. 1850, April; S.W. to N.E. Very slight.

No. 16. 1852, December 16th; S. W. to N.E. 8h. 13m. P. M. Continued about fifty seconds with an undulatory motion. At 10h. P. M. a slighter shock was felt. These shocks communicated motion to bells, lamps, pictures and other suspended articles, and stopped clocks. In some places cornices and portions of wall fell. The first shock was felt at Ningpo about the same time. Meteors, known as St. Elmo's light, were observed at the adjacent islands, and mud, exposed by the ebbing tide, presented the appearance of ebullition; thermometer 55°; barometer 33° 10'. The afternoon of that day at Shanghai and Ningpo was hazy, in consequence of a quantity of fine yellow sand diffused through the atmosphere. Some persons experienced a peculiar sickening sensation at the time. No noises were heard. At Ningpo a second shock was felt at 11h. P. M.

No. 17. 1853, April 14th; S.S.W. to N.N.E. 11h. 13m. P. M. It lasted more than a minute; twenty minutes after, a weaker shock was felt; some walls and chimnies were thrown down; the motion was vibratory. At Ningpo, at 11h. A. M. 4h. 30m. and 9h. P. M. subterranean noises were heard, which were precursors of a succession of earthquakes; the first and most violent occurred at

11 $\frac{1}{2}$. 35*m.* P. M. and continued about fifty seconds; the barometer fell from 30° 43' to 30° 25'. About twenty minutes later there was a slight shock; and five minutes after, a third, so gentle as to be scarcely perceptible. It was blowing at the time half a gale of wind, with heavy rain.

No. 18. 1853, April 15th; S.S.W. to N.N.E. The day following the last, very slight, at 12 $\frac{1}{2}$. 28*m.* P. M. accompanied (at Ningpo) by a fall of the barometer. On those two or three days, the whole number of shocks felt by some persons was eighteen. There was perhaps more or less of a tremor the whole time.

No. 19. 1853, April 15th; S.S.W. to N.N.E. At 3*h.* A. M., and another at 11 $\frac{1}{2}$. P. M.

No. 20. 1853, April 23d; S.S.W. to N.N.E. At 8*h.* P. M. a slight vibration.

Note 1. It will be observed, that more than two thirds of these earthquakes are within the two centuries which date back from that last recorded in the local annals; a reason has already been offered in explanation of this.

2. The harmlessness of these earthquakes is noteworthy; no houses are thrown down, no lives lost. Chinese dwellings are calculated to bear considerable motion without being overthrown; but the brick pagodas that diversify the plain seem fair marks for this destructive agency. It follows that if structures of that description are safe, the mercantile palaces recently erected here can be in no danger from subterranean forces. Sometimes indeed, as I have myself observed, there are earthquakes so very slight and of such limited extent, as to be felt by only a few persons, peculiarly situated at the time. Slight motions of this description are probably not recorded by native observers. A few numbers in the foregoing list are not registered as earthquakes; I have placed them in that category on account of the formation of "hairs" on the ground on those occasions. They were doubtless earthquakes not otherwise appreciable.

3. They appear to occur with the same frequency in each of the four seasons; but there are series of years when they are often observed, followed by long periods of quiet.

4. Observations in a few instances have been recorded respecting their supposed direction; which seems to accord with what have been observed in other parts of this and in adjacent provinces, showing that the motion is generally directed from north-west to south-east or contrariwise.

5. What do Chinese writers mean by a production of *hairs* from the ground after or during earthquakes? Some years since, as an explanation, I offered the probability they were crystals formed by the union of some gas with a salt of the soil—a sulphate of alumina? An inquiry into the phenomena attending earthquakes in the south-western part of the United States and Mexico will throw some light on this subject. Similar deposits on the ground, it is stated, have been there observed after earthquakes. Some cases are recorded in China without an earthquake, as in two of the above list. I have placed them there on the assumption, that an earthquake occurred, but too slight to be observed. The bubbling up of water and mud, mentioned, indicates an emission of gas.

Sub-section 2. SUBMARINE ACTION.

No. 1. A. D. 1357; 6th moon, 23d day. At the sea side, towards dawn, the tide rose suddenly, causing great alarm, as it was not the time for high-water. At the proper high-water time it rose again, so that it was known that the first rise was not the tide. At places which are situated quite beyond the reach of tide, in the canal and lakes near Pingkiang and Kialing, the waters suddenly rose some four or five feet.

No. 2. 1634; 8th month. Three tides in one day at Nanhwai.

No. 3. 1642; 8th month. At Wangpoo, there were three tides in one day; at the same time a violent wind and rain, that injured the crops.

No. 4. 1648; 7th moon, 21st day. Three tides in one day.

No. 5. 1661; 7th moon, 26th day. Three tides in one day.

No. 6. 1662; 7th moon. Three tides in one day.

No. 7. 1719; 9th moon, 19th day. Three tides in one day at Lau.

No. 8. 1754; 8th moon. Three tides in one day at Tsingpu.

No. 9. 1778; 8th moon. Three tides in one day at Nanhwai.

Note. What explanation can be afforded of the appearance of three tides in twenty four hours? I have too much confidence in the truthfulness of Chinese records, to reject the statements. In the first place, we are to bear in mind the proximity of this coast to the chain of volcanoes that girt the continent to the east; next, that when the great earthquakes occurred at Lisbon, inland waters in Scotland were elevated; and finally that on the

occasion of the recent earthquake at Simoda, the inland waters of this part of China experienced a sudden rise, and an immense wave deluged the harbor of Port Lloyd. From these facts we may conclude, that the supernumerary tides of this coast are probably due to subterranean action. Or, they may have been mere storm waves, as the period of their occurrence coincides with the typhoon season. Typhoons, however, would not account for the phenomenon with which the list commences.

Sub-section 3. DEPRESSIONS OF LAND.

An ancient map, of the prefecture of Sungkiang, indicates the site of Tsiangshwui, now a lake, *Mau*. A legend respecting that catastrophe, is to be found in all the adjacent topographies of Chehkiang and Kiangsu. Children got up a report that when blood was seen on the city gates, the city would sink and become a lake. The keepers of the gate observing an old woman coming every morning to see if the gates were bloody, killed a dog and smeared the gates with its blood by way of hoaxing her. The next day, seeing the ominous mark, she hurried out of the city not daring to look behind her. Suddenly there was a great flood, the city sank and became a lake. It is certain that the city suddenly sank in the latter half of the third century of our era. Instances of sudden sinking of land in this part of the country are not wanting; one of these, the ancient city of Haiyen, is rather out of the district to which this paper is limited. There are a few instances related of small portions of uninhabited land sinking and becoming in like manner pools, but neither the places nor dates can be easily ascertained.

Sub-section 4. ERUPTIONS.

No. 1. A. D. 419. At Tinglin, the earth opened several feet; there was a sound of waves and an emission of fire.

No. 2. 964. From a hill on the Tien lake, a torrent of water gushed out and discharged into the lake.

No. 3. 1634; 6th moon. A 蛟 *Kiau* rose at Tsungkwei king and damaged the grain and vegetables.

No. 4. 1548. During a violent wind a 蜃 *Shin* issued from a decayed tree, accompanied with much rain and great waves; one could not see more than a pace. Suddenly a strange fragrant vapor was perceived in an adjoining pagoda, the summit of which shone brightly.

No. 5. 1562; 5th moon. Nine *Kiau* issued from Fa hill at Tsingpu; the water forced its way to the river; a black vapor issued from the ground and went to the north-west.

No. 6. 1598; 5th moon. A *Kiau* issued from Chungkia hill; the south-west corner of the hill fell.

No. 7. 1599. Blood issued from beneath a kitchen.

No. 8. 1609; 5th moon. A *Kiau* issued from Funghwang hill; a tomb in front instantly became a pool of water.

No. 9. 1642. A spring spontaneously appeared; the water was not good, and it was stopped up.

No. 10. 1644. Blood issued from a pool.

No. 11. 1692; 6th moon. There was a noise in the ground as of thunder, with sudden rain, which on level ground was three feet deep; a *Kiau* with two horns forced its way out of the earth and escaped.

No. 12. 1763; 7th month. Two *Kiau* rose from the top of Shin hill; two openings were made in the rock above ten feet in size; there was a great wind, and the rain fell two feet in depth at level places.

Note 1. Under this sub-section I place those accounts of the sudden rushing out of water, usually from a hill, attributed to the fabulous *Shin* or *Kiau*. The *Shin* is popularly described as an embryotic dragon, or a dragon in the first stage of existence. It is formed by the perspiration of that animal falling from the sky upon terrestrial beings. Animals thus affected become *Shin*, sink into the ground and remain there, some say thirty, some a hundred years, emerging in heavy rains as a *Kiau*, which is subsequently transformed into a dragon. These fabulous beings are charged with much that is otherwise inexplicable in the world of matter.

2. The first-named phenomenon does not belong to the doings attributed to fabulous monsters. It seems to have been a transient volcano emitting an ignited gas, not dissimilar to one I have elsewhere described as occurring in Manchuria. Carburetted hydrogen is freely emitted at different points of this district, and permanently from what is known as the "Bubbling well."

3. One of the cases, No. 6, seems to have been a landslide; some of the others were due probably to accumulations of water bursting forth from hill sides. Sometimes nocturnal waterspouts appear to have been the cause. Animals overtaken and disfigured by such

floods and dimly seen, have been regarded as *Shin* or *Kiau*. No. 11 was probably a case of this description. Electrical phenomena attended the case No. 4. The two cases of the emission of blood are not easily accounted for. Instances of that kind occurring elsewhere, have evidently been spontaneous fountains deeply tinged with oxide of iron.

SECTION II. METEOROLOGICAL.

Sub-section 1. FRESHETS.

No. 1. A. D. 825. Taihu Great, Lake overflowed.

No. 2. 998. A flood, causing scarcity of food.

No. 3. 1074. A rain continued from 1st to 6th month; the lakes overflowed; the land could not be cultivated; houses were destroyed; the inhabitants discarded their lands and went away to beg.

No. 4. 1082; 6th moon. Excessive rains and calamitous, over Kiangsu and Chehkiang.

No. 5. 1118; 8th moon. Freshets over this and four adjacent *fus*.

No. 6. 1121. Freshets over this and four adjacent *fus*.

No. 7. 1295; 6th moon. An extensive "water calamity."

No. 8. 1330; 7th moon. Destruction of 36,600 *chin* = 61,000 acres; above 45,000 families suffered in this and adjoining places.

No. 9. 1341; 4th moon. A water calamity occurred.

No. 10. 1376; 12th moon. A freshet.

No. 11. 1404; 6th moon. Excessive rain for 10 days; high places were covered several feet; low places more than ten feet.

No. 12. 1425. Summer the rains injured the crops.

No. 13. 1454; 7th moon. Flood over six neighboring *fus*.

No. 14. 1455; 7th moon. Flood over this and Suchau *fus*.

No. 15. 1492. Crops damaged by rain.

No. 16. 1493. Crops damaged by rain.

No. 17. 1699; 6th moon. An overflow of the sea and lakes (no mention of a storm).

No. 18. 1560; 7th moon. Rain from the 6th to the 11th day and night carrying away houses.

No. 19. 1518. Six prefectures suffered from a flood.

No. 20. 1520; 8th moon. A great wind and rain destroyed the crops and occasioned a dearth.

No. 21. 1523. A severe storm, [perhaps it may have been a typhoon,] the next day water suddenly rose above its usual level.

No. 22. 1523; 6th moon. Great rain, hail and lightning.

No. 23. 1523; 8th moon. Flood over four *fus*.

No. 24. 1541; 6th moon. Freshet drowned several tens of thousands.

No. 25. 1559; 5th moon. Flood.

No. 26. 1602. Spring and autumn, over four *fus* excessive and continued rain, damaging wheat.

No. 27. 1626; 3rd moon. Wind, rain, and hail, damaged wheat.

No. 28. 1627; 2nd moon. Wind, rain, and hail, damaged wheat.

No. 29. 1636. Spring, a flood.

No. 30. 1648. Autumn, a flood.

No. 31. 1652; 4th moon, 5th day. Great rains, flooding the river.

No. 32. 1654; 5th moon. Great rain for ten days; and again in next month, damaging rice.

No. 33. 1662; 1st moon. Great rains.

No. 34. 1668; 6th moon, 14th day. Violent wind and sudden torrents of rain; river swollen four or five feet, destroying innumerable houses, accompanied with a water spout.

No. 35. 1671; 4th moon, 11th day. Excessive rain; again in next month with violent winds, tore up trees, levelled houses, continued three days and nights; next day a freshet. There was a famine that year.

No. 36. 1675; 6th moon. Great wind and flood.

No. 37. 1675; 10th moon. Protracted rains.

No. 38. 1677; 6th moon. Flood.

No. 39. 1678; 5th moon. Hail-storm.

No. 40. 1681; 5th moon. Flood.

No. 41. 1681; 8th moon. Sudden torrent of rain and rise of water, undermining and overturning a part of the Shanghai walls, killing several persons.

No. 42. 1684; 1st moon. Steady rain till fifth month; damaged wheat.

No. 43. 1695; 9th moon. Great rains; sudden rise of rivers and calamities.

No. 44. 1696. Summer, long rain injured crops.

No. 45. 1698. Autumn, flood.

No. 46. 1703. Autumn, flood.

- No. 47. 1706. Summer, continued rain; flood in autumn.
 No. 48. 1709. Summer, continued rain; flood in autumn.
 No. 49. 1710. Autumn, protracted rain.
 No. 50. 1711. Summer, protracted rain; flood.
 No. 51. 1716. Spring and autumn, continued rains; a bad harvest.
 No. 52. 1719. Protracted winds and rains; a bad year.
 No. 53. 1727; 8th moon. Heavy and continued rain damaged the rice crop.
 No. 54. 1740; 4th moon. Heavy rain; hail, damaged wheat.
 No. 55. 1759. Summer, a flood.
 No. 56. 1762; 6th moon. A flood.
 No. 57. 1767. Summer, a flood.
 No. 58. 1770. Summer, a flood.

Note 1. The distinction between this and the following sub-section is not well marked. Some of the cases recorded in this might be placed in that and *vice versa*. Those however are mainly sea storms, while these are from the mountains.

2. If earthquakes are harmless, the same cannot be said of storms. This and the following, if not of much interest, will yet be useful for reference and comparison.

Sub-section. 2. TYPHOONS AND STORMS.

No. 1. A. D. 496; 7th moon. This and the two years following, violent wind, destroyed houses, broke trees and killed people.

No. 2. 962; 7th moon. Violent wind, tore up trees.

No. 3. 1088. A sea wind destroyed fields.

No. 4. 1132; 11th moon. At night a fierce wind, with lightning and solid hail of the size of lichis, destroying dwellings and boats.

No. 5. 1147; 10th moon. Wind, thunder, and hail like a shower of arrows; destroyed houses and boats.

No. 6. 1195; 7th moon. Great wind; the tide seaward destroyed the crops.

No. 7. 1310. Great wind; sea flowed over the fields.

No. 8. 1335; 5th moon. Hail-storm; hailstones varying in size, from water lily seeds to hen's eggs.

No. 9. 1371; 7th moon, 16th day. A great wind rose from the sea, dust and sand filled the sky, there were also observed things like hawks and tiles. A flagstaff was broken and carried

to a distant place where the wind ceased, leaving bank-notes or sacrificial paper scattered about a villager's house.

No. 10. 1391. The sea suddenly overflowed and drowned 20,000 persons.

No. 11. 1405; 7th moon, 2nd day. A great wind and rain; sea overflowed, drowning above 1,000 persons.

No. 12. 1440; 7th moon. Suchau, Sungkiang and two adjacent *fus* visited by a violent wind, which tore up trees and damaged crops.

No. 13. 1445; 7th moon, 17th day. Great wind, which tore up trees and levelled houses; rain for a day and night incessant. Lake and sea overflowed. Several places were covered several feet with water; innumerable dwellings floated away.

No. 14. 1474; 7th moon, 17th day. A great wind and rain which tore up trees; sea overflowed, and drowned 10,000 persons.

No. 15. 1487; 7th moon. A great wind and rain.

No. 16. 1504; 4th moon. A hail-storm, killed wheat, cattle, and men.

No. 17. 1506. Overflow of the sea, with great wind and rain.

No. 18. 1511; 6th moon. A great wind damaged the fields; the people were scattered, and there was a famine and pestilence of which countless numbers died.

No. 19. 1523; 7th moon. Destructive storms of wind and rain.

No. 20. 1540; 7th moon. A roaring of the sea; a N.E. wind; several myriads were drowned; it was a year of dearth; men and crops perished.

No. 21. 1541; 7th moon. In five prefectures the sea overflowed.

No. 22. 1566; 7th moon. A great wind and rain, levelling houses and one monumental gate.

No. 23. 1570; 6th moon. The sea rose with a great S.E. wind, occasioning destruction of dwellings and loss of life, inundating the land with salt water; when a species of crab appeared in great numbers damaging plants.

No. 24. 1575; 12th moon. A great N.W. wind, levelled houses, tore up trees, and made tiles fly; it lasted a day and a night.

No. 25. 1576; 3rd moon. A great wind; the sea overflowed the dykes, salting the fields, destroying houses and drowning people.

No. 26. 1583; 7th moon, 13th day. The dykes gave way in a storm of wind and rain of twenty-four hours duration; innumerable men and animals destroyed; also a loss of crops in consequence, followed by famine.

No. 27. 1583; 10th moon, 13th day. Violent N.W. wind; vessels capsized in the river.

No. 28. 1588. Summer and autumn, strange thunder and typhoon; rice, wheat, and beans were broken down.

No. 29. 1589; 7th moon. A great wind; trees were torn up and grain injured.

No. 30. 1590. An overflow of the sea, destroying several thousand houses, drowning innumerable animals and more than 10,000 people.

No. 31. 1627; 7th moon, 1st day. A typhoon with rain destroyed trees and dwellings; another a few days after.

No. 32. 1634; 7th moon. A great wind and rain damaged houses and grain.

No. 33. 1642; 8th moon. A great wind, rain, and hail, damaged rice.

No. 34. 1643; 10th moon. At night violent thunder; wind and rain broke trees and carried off tiles.

No. 35. 1645. Autumn, a great wind; the sea broke the dyke, salted the land, and thereby destroyed the rice.

No. 36. 1648; 4th moon, 3rd day. A hail-storm; hailstones the size of a fist wounding cattle and damaging crops.

No. 37. 1654; 3rd moon. A great wind and hail.

No. 38. 1665; 7th moon. A typhoon; the sea broke embankments, people floated out to sea on the wrecks of houses; some were rescued by an officer.

No. 39. 1673; 7th moon, 20th day. Hail two or three catties weight, killing horses and oxen.

No. 40. 1688; 7th moon, 10th day. A great wind, rain, thunder, and lightning; the next day the storm was still worse; it extended over a thousand *li*; destruction of life and property in every direction.

No. 41. 1691; 7th moon. Storm and flood, damaging the crops.

No. 42. 1697; 6th moon, 1st day. A typhoon, destructive of life and property.

No. 43. 1703; 3rd moon. An overflow of the sea.

No. 44. 1716; 7th moon. A typhoon; a bad harvest.

No. 45. 1724; 4th moon, 8th day. A great hail-storm, in lumps of fifty catties, killed one and wounded many persons.

No. 46. 1725; 7th moon, 18 day. Typhoon; a sudden torrent of rain from morning till night; it whirled about; next month the sea overflowed.

No. 47. 1732; 7 moon. Typhoon several days, tore up trees and levelled houses; sea overflowed; cities flooded.

No. 48. 1735; 7th moon. A great wind; sea overflowed.

No. 49. 1738; 10th moon, 5th day. Violent wind from N.W.; flocks of sea birds filled the sky; the storm devastated the grains for over a month and then dispersed.

No. 50. 1748; 7th moon. A great wind; sea overflowed, and drowned above 20,000 people.

No. 51. 1752; 6th moon, 16th day. A great typhoon, continuing a day and a night; threw down walls and houses innumerable; the sea overflowed.

No. 52. 1764; 11th moon, 11th day. A storm with hail; but as harvest was already gathered, it did no damage.

No. 53. 1772; 6th moon, 18 day. A great wind; rain and trees torn up; overturned vessels and houses.

No. 54. 1791; 4th moon, 5th day. A severe hail-storm.

Note. The above for the most part were no doubt typhoons, although that term *ku-fung* is applied to a few of them only. All those that occurred from the 5th to the 9th month were of this class, and some others. Inundations of the sea are more hurtful than freshets, more destructive of life, and always damaging for a time to the soil. The former however are of wider extent, and attended with epidemics and famines. In some cases inundations of the sea are mentioned without storms, but it does not necessarily follow that none took place at the time.

Sub-section 3. WATERSPOUTS.

No. 1. A.D. 1189. At Tien lake there was a great wind, when two dragons were seen fighting, and the decorations of a neighboring temple were blown away; in an instant the dragons whirled over the top of the temple, and were visible far and near.

No. 2. 1512; 6th moon. A dragon was seen to the S.E. of Whangpu; it scorched paddy and destroyed houses in its course.

No. 3. 1519; 8th moon. There was a great flood at Shanghai and nine dragons fighting at sea.

No. 4. 1605. A couple of dragons fought at Whangpu and tore up a large tree, and demolished several tens of houses.

No. 5. 1608; 4th moon. A gyrating dragon was seen over the decorated summit of a pagoda; all around were clouds and fog; the tail only of the dragon was visible; in the space of eating a meal, it went away, leaving the marks of its claws on the pagoda.

No. 6. 1609; 6th moon. A white dragon was seen at Whangpu; on its head stood a god.

No. 7. 1452; 6th moon. A dragon at the Tsau stream taking up water, lifted a boat, and transported it to the middle of a field; rain fell to the depth of several feet, soaking plants to death.

No. 8. 1660; 1st moon. A dragon seen, attended with great rain.

No. 9. 1667; 6th moon, 14 day. Dragons were seen fighting in the air; there was a violent wind and excessive rain; the canal rose four or five feet; many houses were destroyed, a tree above ten arms-length in circumference was torn up, &c.

No. 10. 1773; 7th moon, 20th day. A group of dragons burnt paddy in the fields, drew houses into the air and travellers also; hailstones of two or three catties weight fell, killing horses and animals.

No. 11. 1735. A dragon destroyed dwellings, tore up trees and damaged paddy.

No. 12. 1730; 9th moon, 3rd day. Dragons fought at Mau lake, and went off S.E. to the sea, destroying the paddy as they went.

No. 13. 1749; 12th moon, 8th day. A dragon seen during great thunder and rain; the night following was very cold, and followed by a three days snow storm.

No. 14. 1769. Winter. Tien lake rose into an ice hill; several tens of *tsiang* (50 feet?) high, and two *li* (two thirds of a mile) long; just before it occurred the residents heard a noise as of a myriad of soldiers; looking out of the windows by night, they saw more than a thousand lights; in the morning they saw the ice hill, it remained a month before melting.

No. 15. 1787; 7th month. Dragons fought; a great wind overturning houses, and carrying off, no one knows where, half a stone bridge.

Note Hitherto, Chinese accounts of the dragon have been regarded as wholly unworthy of credit. At first sight the notices

given above of this formidable animal of the upper regions seem rather dubious. They are too well attested, and of too striking a character not to be received by Chinamen, and he who admonishes the natives against giving credence to such fables, will labor in vain. A moment's reflection will lead the reader to agree with me in calling them waterspouts.

It is remarkable that they should be of such frequent occurrence on land, a circumstance due in part no doubt to the lacustrine feature of the country. They seem to occur at all seasons. The electrical phenomena of some will be noted, particularly their scorching character; also the fall of heavy hail-stones. No 14 is a phenomenon not easily explicable; no mention is made of a dragon. I have placed it among waterspouts, conjecturing that one of those miniature cyclones swept over the little lake at a moment of extreme cold, and drew up the water. An absorption of latent caloric, and also a disengagement of heat, seem to be among the concomitants of those little storms. No. 10, affords an illustration of both, in the scorching effects and the heavy fall of hail.

Sub-section 4. DROUGHTS.

No. 1. A. D. 504. A great drought; the five grains all failed; rice was 5,000 cash a *tan*; many starved to death.

No. 2. 1319. A great drought.

No. 3. 1360. A great drought.

No. 4. 1519. A great drought over five *fus*.

No. 5. 1523. A great drought.

No. 6. 1531. A great drought which included Suchau.

No. 7. 1545. A great drought.

No. 8. 1546. Greater drought; rice very dear.

No. 9. 1589. Spring, a drought.

No. 10. 1590. No rain from fifth to seventh month; the Mau lake was dry.

No. 11. 1636. Summer, a drought.

No. 12. 1641. Drought with locusts.

No. 13. 1642. Drought with locusts.

No. 14. 1653. A very hurtful drought.

No. 15. 1662. Great drought; a bad harvest.

No. 16. 1666. Great drought.

No. 17. 1680. Great drought; no rain from 3rd to eighth month.

No. 18. 1672; 7th moon. A great drought.

- No. 19. 1694. A great drought; bad harvest.
- No. 20. 1697; 5th moon. A great drought.
- No. 21. 1705; 7th moon. A great drought.
- No. 22. 1706. Summer, a drought; autumn, a dearth.
- No. 23. 1708. Summer, a great drought.
- No. 24. 1715. Summer, a great drought.
- No. 25. 1723. Summer, a great drought.
- No. 26. 1724. Autumn, a great drought.
- No. 27. 1734. Summer, a great drought and epidemic.
- No. 28. 1787. A great drought.

Note. Taking the last hundred years of this record as a standard, one drought may be calculated on in ten years, at varying intervals however.

Sub-section 5. FAMINES.

- No. 1. A. D. 502. A year of drought; harvest failed; rice was 5,000 cash a *tau*; many starved to death.
- No. 2. 1165. People ate bran.
- No. 3. 1281. Wide-spread famine.
- No. 4. 1305. A famine.
- No. 5. 1320. A famine.
- No. 6. 1331; 7th moon. A famine, with water calamity.
- No. 7. 1333. A famine.
- No. 8. 1336. During this and two following years, there were no harvests; people boiled and ate their sons and daughters.
- No. 9. 1386. A famine.
- No. 10. 1403. A famine at Shanghai city.
- No. 11. 1405. A famine over this and three neighboring *fus*.
- No. 12. 1483. A famine (following a winter in which there was a thunder storm).
- No. 13. 1496. A famine through the four neighboring *fus*.
- No. 14. 1506. A famine.
- No. 15. 1563. A famine, rice costing 170 (the figure is probably a misprint); the people scattered; attacks were made on granaries; the leader of the riots was beheaded.
- No. 16. 1568. A famine over two *fus*.
- No. 17. 1583. A famine.
- No. 18. 1589. A famine; people ate bran, roots of grass and leaves of trees; many drowned themselves.
- No. 19. 1590. A famine, from drought.
- No. 20. 1591. A famine, and epidemic.

- No. 21. 1610. A famine.
- No. 22. 1625. A famine, after excessive rains.
- No. 23. 1633. A famine; rice extremely dear.
- No. 24. 1653. A famine, in consequence of a drought.
- No. 25. 1662. A very scarce year, from drought.
- No. 26. 1679. A very scarce year, from drought.
- No. 27. 1690. A famine from drought.
- No. 28. 1694. A scarce year, owing to drought.
- No. 29. 1706. A famine.
- No. 30. 1708. A scarce year.
- No. 31. 1709. A famine; rice very dear, owing to flood.
- No. 32. 1716. A scarce year.
- No. 34. 1722. A famine.
- No. 33. 1723. A scarce year.

Note. Tempests and typhoons, accompanied by inundations of the sea, droughts, and locusts, have been the occasion of these calamities; their attendant, disease, also played its part with survivors. The best protective against visitations of this kind, is a system of rail-roads. Generally speaking famines have been local; and but for the imperfect means of transportation, these could not have occurred.

Sub-section. 6. EPIDEMICS.

- No. 1. A.D. 1333 An epidemic 疾疫 *tsih yuh*.
- No. 2. 1455. Summer, a great 疫 *yuh*; deaths innumerable.
- No. 3. 1493; 6th moon. An epidemic and famine; half the population of Shanghai died.
- No. 4. 1576. A great *yuh*; the six gates of Shanghai gave exit to nothing but wheel-barrows bearing corpses; there was an insufficient supply of coffins, and mats were used for covering the dead.
- No. 5. 1591. Epidemic and famine.
- No. 6. 1664. Epidemic.
- No. 7. 1678; 6th moon. A great 疫癘 *yuh li*.
- No. 8. 1679. A great 疫 *yuh*.
- No. 9. 1680; 8th moon. A great *yuh*.
- No. 10. 1698. Summer, a great *yuh*.
- No. 11. 1710. Summer, a great *yuh*.
- No. 12. 1729. Summer, a great *yuh*, with drought.
- No. 13. 1734. Summer, a great *yuh*.

No. 14. 1750. Summer, a great *yuh*.

No. 15. 1757. Summer, a great *yuh*.

No. 16. 1787. Summer, a great *yuh*.

Note. Our Chinese authorities afford us no information on this the most important subject in this collection. Yet this bare record is not without its value. An attempt has been made to trace the rise of the epidemic of the middle ages, so long the terror of Europe, to this part of China. The conjecture is supported as yet by very few facts, although in consulting records of this character, I have paid some attention to the investigation of this question. Further research is needed.

*Sub-section 7. IRREGULAR SEASONS AND EXTREMES OF
TEMPERATURE.*

No. 1. A.D. 1147; 10th moon. Thunder and hail.

No. 2. 1445; 12th moon. Snow fell seven days and nights; it was 12 feet deep; people were obliged to remain in their houses until streets were cut out of the snow.

No. 3. 1483; 11th moon. At the winter solstice, great thunder and lightning and snow; the following year there was a famine.

No. 4. 1510. An extremely cold winter; bamboo, cedar and orange trees killed; for several years no oranges in the markets; there was ice several feet thick, for a month in the river.

No. 5. 1575. In summer a poisonous heat killed many ploughmen and oxen.

No. 6. 1577; 5th and 6th moons. (Summer) a rain as cold as winter; it damaged the crops.

No. 7. 1590; 6th moon, 18th day. At night (summer), snow fell from midst of the moon, like the fine flowers of the willow, or shreds of silk; taken in the hand all found to be hexagonal.

No. 8. 1592; 10th moon. Thunder, lightning and hail.

No. 9. 1618. 12th moon. Midnight, great thunder and lightning.

No. 10. 1620; 10th moon, 20th day. Excessive lightning, that night the moon was as round as on the 15th (full).

No. 11. 1627; 12th moon. A great fall of snow, over five feet in one night; bamboo and other trees broken; birds and animals died.

No. 12. 1628; 2nd moon. A fall of snow (say in March).

No. 13. 1631; 12th moon. Thunder.

No. 14. 1637; 12th moon. Very cold; the Whangpu river and lakes frozen.

No. 15. 1643; 10th moon. At night violent thunder, rain and wind, broke trees and carried off tiles.

No. 16. 1653; 11th moon, 13th day. Great thunder, three times; shaking.

No. 17. 1655. Winter, Mau and Tien lakes frozen over; for several days, people could walk over them.

No. 18. 1668; 12th moon. Thunder and a rainbow.

No. 19. 1677. Winter, a thunder storm with snow.

No. 20. 1684; 12th moon. Excessively hot, like summer; at night, there were heavy peals of thunder, with torrents of rain.

No. 21. 1690; 9th moon. Rain without clouds; no harvest that season.

No. 22. 1694. Winter, ice in the Whangpu river.

No. 23. 1695; 12th moon. Thunder and lightning at night with great rain.

No. 24. 1705; 4th moon. A great rain for ten days, as cold as winter.

No. 25. 1711. A rainbow in the east on new year's day.

No. 26. 1691; 12th moon. Snow for four or five days; men horses, and animals frozen to death; for half a month it was so cold that no one went abroad.

No. 27. 1747; 6th moon. Snow fell.

Note. The Chinese record calls for no explanation. Electrical action in mid-winter, and a temporary reversal of seasons in summer and winter might be looked for in such a history. Excessively severe winters are often noted in records of this kind. The case of excessive heat in summer, that killed men and animals in the fields, is the only one of the kind I have met with. It may have been a meteor caused the "poisonous heat." If its ravages were limited to a particular tract, that explanation will suffice.

Sub-section 8. METEORS.

No. 1. A. D. 519; 5th moon. A shooting star fell and became a stone.

No. 2. 1359. A goat-herd observed a shooting star, from the midst of which a fish fell.

No. 3. 1306; 9th moon. A wind like fire came from the south-east, followed by an earthquake; a few days after, a star shot from the north-east and fell into the sea.

No. 4. 1561. Summer, a stone fell at Sungkiang; several days afterwards the stone moved of itself suddenly on a rainy night.

No. 5. 1587; 2nd moon. A fall of yellow sand; all who ate of the vegetables on which it fell died.

No. 6. 1596; 1st moon. A sound of a drum in the sky.

No. 7. 1797; 12th moon, 23rd day. At the Mau lake, at Kwangyin pavilion, there was suddenly seen a white streak of light, like a roll of silk a thousand feet long; the wind that day was from the north-east; the temple flags turned in that direction.

No. 8. 1600; 7th moon. Near night, the sound of demons was heard in the heavens; suddenly the noises came from all quarters and crackers were fired off; it was regarded as a sign that government was again about to issue paper money.

No. 9. 1623; 2nd moon. Yellow sand fell, filling all quarters, the sun was of a dusky hue; another shower, two days after, quite obscured the sun.

No. 10. 1624; 3rd moon. Heaven drummed.

No. 11. 1625; 2nd moon. Shower of sand; the sun was white; no brightness for three days.

No. 12. 1626; 6th moon. At night a sound of swordsmen in the sky; a decayed tree gave out blood.

No. 13. 1637; 3rd moon. Yellow sand fell.

No. 14. 1638; 11th moon. Sand red as blood fell.

No. 15. 1642; 2nd moon. A black fog fell; nine days after, yellow sand fell.

No. 16. 1642; 3rd moon. Wind and sand filled the heavens.

No. 17. 1660; 3rd moon, 16th day. A star fell on the ground, with a noise like thunder.

No. 18. 1677; 5th moon. A star fell at Piau lake, striking the ground with a noise; the people went to dig it up, and found a black stone warm to the touch; it weighed nineteen catties; when broken up and used for sharpening knives, it emitted sparks.

No. 19. 1723; 7th moon. Night, a large star shot from north-west to the Great Bear, of the size of a peck measure; the glare lighted the heavens.

No. 20. 1745; 2nd moon, 9th day. Hail fell the size of mill-stones, killing birds, beasts and men; at the time it was suddenly as dark as night; lamps were lighted; again suddenly the sun shone brightly; it lasted about four hours.

No. 21. 1782; 6th moon, 18th day. A great wind and rain; trees were torn up, boats capsized, and houses thrown down; seawater was carried into the canals, making them briny for two weeks. The day before this tornado, there was seen outside of Yuling, something of the size of a house, formless, without head or feet, resting on the ground, and then bounding over the dyke into the sea, furrowing the ground in its course; no one knew what it was.

Notes. The instances of the fall of yellow sand, recorded above, must have been excessive in degree; as we have long discovered to our inconvenience, these showers occur every spring. As I have elsewhere described them, I shall here only note the poisonous one, No. 5, and state that I have been unable to ascertain what mineral it was that fell. Whirlpillars, taking their rise in the north or north-west, may raise up and carry to this place dust or sand of any description. On this occasion it bore some very potent mineral. For want of a better place, an electrical phenomenon has been introduced as No. 7. Several cases of lightning striking buildings have been omitted. The sound of a drum in the heavens is often met with in records of this kind. These are owing sometimes probably to thunder without lightning, or more frequently to invisible aerolites. The noise of demons may be due to this also. Two large aerolites are to be seen preserved in a public building at Sungkiang. The meteor accompanied by the fall of huge lumps of ice is remarkable; they could not have been less than a foot and a half in diameter. I am at a loss what to say about the case which closes this sub-section.

Sub-section 9. ATMOSPHERIC ILLUSIONS.

No. 1. A.D. 1337. A hen was seen sitting on the sun; its feet were not visible.

No. 2. 1348; 7th moon, 15th day. At night a star as large as a bowl, of a white and slightly azure color, with a tail about 50 feet long, lightened the sky, with a rumbling noise flew from the north-east, and entered the midst of the moon, the moon then looking as a reversed tile,—i. e. upright.

No. 3. 1505; 6th moon. At the north-west a five-colored (variegated) cloud was seen, at first like the wings of a phoenix, then as a range of hills, of a bright gorgeous light; in two hours it disappeared.

No. 4. 1554; 1st moon. The 6th day after an eclipse of the sun, black suns confusedly fell a couple of hours and then stopped.

No. 5. 1590; 7th moon. A small star was expelled from the midst of the moon.

No. 6. 1593. A star issued out of the moon.

No. 7. 1611; 4th moon. A white rainbow, having the sun in its centre.

No. 8. 1622; 8th moon. Before sunset there was a white rainbow several tens of feet long; extending from north-east to south-west.

No. 9. 1222; 10th moon, 20th day. On that night (five days after full), the moon was round as if full.

No. 10. 1625; 3rd moon. A black rainbow seen to the south; it was so long as to span the sky.

No. 11. 1626; 7th moon. Beneath the sun was a halo like a black sun; also a large star was seen in the east with a red glare irradiating it.

No. 12. 1650; 7th moon, 20th day. Near night, a belt of black vapor darted from the sun's midst to the zenith; when from the sea another rose, uniting with the black one from the sun as a bridge; at night it disappeared.

No. 13. 1651. Summer, a black rainbow crossed the sun, its head and tail touching the earth.

No. 14. 1678; 7th moon, 6th day. At night, the moon being crescented, suddenly a black vapor severed the moon into two parts, leaving a path between them a foot wide; the halves were also divided by a narrower strip; the vapor disappeared in a couple of hours, and the parts reunited; a large star followed with a glare like a roll of silk.

No. 15. 1680; 1st moon. A black vapor from west to east over the expanse of heaven.

No. 16. 1681; 1st moon, 15th day. The moon red and without light.

No. 17. 1718; 12th moon. A belt of red light extending from north to south, fell into the sea with a noise.

No. 18. 1773; 2nd moon. A sea market was seen at Kungshan, visible a whole day.

Note. I make no pretensions to be an interpreter of nature, professing to be a mere interpreter of the Chinese language, and shall not be expected to offer explanations of all that Chinese

observers record. The cases of parhelia will be readily recognized. The phrase "fighting suns," by which these brilliant phenomena are usually described, may also be rendered by "suns being in opposition." Thus in translations of the 網鑑易知 it is said,— "When the Hia dynasty perished (1765 B.C.), two suns fought in the heavens." By the sea market (18), a mirage is intended; its duration was remarkable. That part of the sea on Hangchau Bay which lies near Kiahing, often exhibits this illusion. It is more frequently seen from the opposite side. "Sea market" is the general term by which the mirage is designated, and it is noted as occurring at different points of the coast from Canton to Shantung.

SECTION III. BOTANY.

Sub-section 1. STRANGE PRODUCTIONS.

No. 1. A.D. 200? About the middle of the third century, there was a spontaneous growth of rice.

No. 2. 1023; 6th moon. The lakes and fields as far as Kiahing and Suchau produced sacred rice. The hungry people ate it.

No. 3. 1350? A willow tree made a noise like an ox three successive times.

No. 4. 1357; 4th moon, 15th day. At the fifth tything of Yangkiang western azure temple, there was a sound emitted from the wooden pillars of a building of nineteen rooms, resembling the beating upon a tub inverted in water; on applying the hand to the pillars, it was shook and repelled; it lasted a couple of hours.

No. 5. 1489. A felicitous bamboo; a single root gave rise to a pair of parallel stems, having corresponding branches, and both of the same size and height; four years later the same thing occurred.

No. 6. 1492. Spring, a *kai* (a coarse kind of mustard usually two feet high) grew in a shady place to the height of ten feet, with leaves the size of the plantain; the flowers rose two feet above the walls of the court.

No. 7. 1505. Another instance of a double bamboo.

No. 8. 1511; 2nd moon. At Pehsha village, 14th tything, there was a tree that made a noise.

No. 9. 1568; 3rd moon. In Shanghai a decaying tree gave out smoke, like threads of silk, from an aperture.

No. 10. 1569; 10th moon. On a winter night there was thunder and lightning; pear and peach trees flowered, grain sprung up, and plum and maiden-hair trees fruited.

No. 11. 1626; 6th moon. A very old tree gave out blood.

No. 12. 1645; 1st moon. A decayed tree at Kinshan ignited of itself.

No. 13. 1768. Spring, in the court of the literary chancellor, a pair of bamboos sprang from one root.

No. 14. 1773; 6th moon, 17th day. Afternoon, during a fine rain there was a sudden clap of thunder, when a decayed cypress tree in front of the district magistracy revived and flourished.

Note. Two instances will be noted of the effects of electric action on vegetation, and two of spontaneous combustion; the other cases the reader will reject or explain as he sees fit.

Sub-section 2. ABUNDANT HARVESTS.

No. 1. A.D. 1511. Summer, wheat had many branches and heads.

No. 2. 1663. A year of great abundance; rice was excellent and double the usual quantity.

No. 3. 1667. A great harvest; one *hoh* of rice (133 lbs.) cost only two *tsien* [say 70 or 80 cash] at that time at Hukwang, and the right of the river it was still cheaper. The fields did not yield enough to pay taxes; the granaries of the rich were overflowing, but they discarded it; goods of every description were without purchasers; people called that the year of "ripe dearth."

No. 4. 1683. A very productive year; single stems of rice had double heads, some three or four. Specimens were rolled up, and deposited in a temple, with a written account; the circumstances became known from the discovery eighty-four years after, on repairing the temple.

No. 5. 1713. A year of abundance.

No. 6. 1731. A year of great abundance.

No. 7. 1737. A year of abundance; some stalks had double, others four or five heads.

No. 8. 1744. A year of abundance.

No. 9. 1749. Rice with double heads, some with six or seven.

No. 10. 1753. A year of abundance; a *tau* of rice cost less than one hundred cash.

No. 11. 1754. A year of abundance.

No. 12. 1761. A year of abundance.

No. 13. 1769. A year of abundance.

No. 14. 1773. A year of abundance.

No. 15. 1776. A year of abundance.

No. 16. 1787. A year of abundance.

No. 17. 1788. A year of abundance, and double-headed rice.

Note. The only pleasing feature in the records of which this sub-section is composed, is marred somewhat by "too much of a good thing." The agriculturist and political economist, the merchant and vegetable physiologist will read with interest the brief note on the distress occasioned by that year of remarkable productiveness, 1667.

SECTION IV. ZOOLOGY.

Sub-section I. HETEROLOGOUS.

No. 1. B.C. 167. Horns grew on a horse.

No. 2. A.D. 1352; 8th moon. A spayed bitch had a litter of eight pups, one of which had claws as red as blood.

No. 3. 1523; 6th moon. Tanchuen, a female servant in the Hwang family at Shanghai, gave birth to a son, on the top of whose head there were two horns of flesh, and whose eyes were in the forehead, resembling the devil's bailiff; it was cast into the canal.

No. 4. 1526. At Hwangking, a farmer named Kungfang had a fleshy tumour over the ribs, on the side of the body, which being cut open, a foetus was discovered enclosed.

No. 5. 1552. A woman had a beard.

No. 6. 1554; 6th moon. At the village of Tuling there was a boy born, who slipped under the bed and wailed; it was put to death; it was hairy and had horns like the devil's bailiff (a demon with a cow's head, to whom Yenlo king of hades sends the souls of wicked men on dying).

No. 7. 1568. A sow brought forth a pig, having on its right side for a paw a human hand.

No. 8. 1588. A pig born with eight legs.

No. 9. 1588. A black hog changed to white.

No. 10. 1593. A young cock on breaking its shell, was found to have a comb hanging down like a fringe; in the middle it had a horn.

No. 11. 1596; 3rd moon. A pregnant woman suddenly vomited a foetus an inch long; its body and limbs were rather perfect; it caused alarm and it was thrown away.

No. 12. 1600. A sow belonging to the Yen family produced a pig, with a human head, white body, and long square nose; its fore legs had human hands.

No. 13. 1601. A buffalo brought forth a calf with two heads and four fore and two hind feet.

No. 14. 1613; 4th moon. The Séu family had a chicken, with one head, four wings, four legs and two tails.

No. 15. 1614. At Yangkia pang a boy aged fourteen years, had on his abdomen, a human head, face, mouth, and nose complete, but the eyes had no lustre.

No. 16. 1632. A Mrs. Lí changed into a man and begat a son.

No. 17. 1637; 7th moon. A three-legged chicken was produced.

No. 18. 1646; 5th moon. The wife of one Yang had a son with three eyes, and a horn from each temple.

No. 19. 1656; 12th moon. Outside of the great east gate, Shanghai, a pregnant woman went twelve months and produced something like a pig, the eyes at the side of the ears, its whole body being full of hairs.

No. 20. 1658. A child born with two heads.

No. 21. 1644. A fisherman caught at Tsiangmau a large fish weighing thirty-five catties, resembling a tench, with five eyes in its head.

No. 22. 1680. At Kingshan a male child was born with its eyes set in its forehead, and a fleshy horn on its head.

No. 23. 1680; 8th moon, 16th day. At Hwangnetun, a strange fish was caught; it had no scales, a man's head, and a tortoise back, of the size of an ox.

No. 24. 1685. A goat produced a kid and a monkey.

No. 25. 1694. At Chansha in a litter of eight pigs, one of them had but one eye, and had a fleshy head.

No. 26. 1694. A child born with two heads, face to face; it soon died.

Note. Records analogous to the above are to be met with in Western history, and do not here call for special remark.

Sub-section 2. RARE VISITORS.

No. 1. A. D. 200? About the middle of the 3rd century, five large birds were seen in the spring of the year; they were considered the phoenix.

No. 2. 290-307. At Lau district a sound was suddenly heard in the ground at the Hwaiyau family residence, as of a dog barking; digging they got a dog and a bitch; their eyes were not

yet opened; they resembled ordinary-sized dogs; they were fed, and many came to see them; old folks said they were rhinoceros dogs, and that the captors would get rich.

No. 3. 456. A white bird was caught and sent up to the emperor.

No. 4. 1305. Locusts.

No. 5. 1351. Among a brood of seven chickens, there was one that was like a full-grown cock; it stretched its wings and crowed.

No. 6. 1367. Mrs. Tsiang, a blacksmith's wife had triplet sons; the scholar Pang wrote an ode on the occasion.

No. 7. 1516. The south hills of Shanghai visited by a tiger which devoured people.

No. 8. 1530; 7th moon. Locusts filled the heavens; a typhoon carried them off to sea; those that fell on the ground became crabs, which devoured the paddy or rice.

No. 9. 1540. Locusts ate all the paddy.

No. 10. 1552. A pair of tigers swam from the sea to Kinshan, and wounded three men.

No. 11. 1570; 6th moon. Devastation of the crops on the coast by a small species of crab, after an inundation of the sea.

No. 12. 1589. An animal resembling a monkey was seen on the Lí pagoda; it disappeared after a few days.

No. 13. 1595; 3rd moon. A deer above ten feet high swam from Lang island and came to Shanghai, crossing the river; the district magistrate sent above ten boats after it; it was pierced by an arrow, and stoned to death.

No. 14. 1798; 2nd moon. Black rain fell; people's clothes were spotted with it as by ink.

No. 15. 1606; 6th moon. A gigantic variegated bird lighted at Hwating, five or six feet high; its head had beautiful tufts floating in the wind.

No. 16. 1606; 9th moon. A couple of tigers swam from the sea to Kinshan and wounded three men.

No. 17. 1632. A tiger issued from amidst reeds at the Whangpu; chased to Kanpu and captured.

No. 18. 1633; 4th moon. It rained blood, from Wutsau stream to the north-east.

No. 19. 1633; 11th moon. Blood fell at Hwating.

No. 20. 1639; 4th moon. Mrs. Pau had triplet sons.

No. 21. 1640. Spring; two monstrous fish were stranded near Kinshan; one was black, without scales, about a hundred feet

long; its intestines were like a cart wheel, and its tongue was ten feet long; the other was smaller and white; they had no eyes.

No. 22. 1641. Locusts filled the sky.

No. 23. 1642; 3rd moon. Locusts.

No. 24. 1643. Spring, young locusts came out; meeting rains, they were changed into crabs.

No. 25. 1645; 2nd moon. Four white swallows made their nests at the east gate of Sungkiang.

No. 26. 1648. A tiger was hunted by the military, and pierced in the eye by an arrow.

No. 27. 1654. A fall of sweet dew.

No. 28. 1659; 4th moon. A white tiger was seen at Kinshan, which suddenly entered the city and carried off an old woman; the military fought with it, and four of them were bitten; doors were all shut; next day it suddenly disappeared.

No. 29. 1666; 6th moon. In the latter half of the month, sea birds came and rested on the sea shore.

No. 30. 1673. Locusts filled the sky; they came from the north and went to the south; where they passed, they ate leaves of the bamboo and heads of the reeds only, not touching grains; a prefect on his way from Suchau observed them clinging to the heads of the rice all dead.

No. 31. 1680. Summer, sand insects damaged the paddy.

No. 32. 1680; 8th month. Locusts filled the air; they came from the north and went to south; they lighted on reeds, not touching rice.

No. 33. 1682. A tiger came from the west, and devoured a boy; the soldiers could not capture it.

No. 34. 1685; 8th moon, 4th day. At night a huge fish was brought in by the tide; it was without scales; the flesh weighed above 2,000 catties, over 3,000 lbs.

No. 35. 1689. Autumn, insects ate the rice.

No. 36. 1690. Summer, a dog crossing a river, fell off the bridge, and suddenly sank; in an instant a great fish like a silure with beard several feet long, was seen holding the dog in its jaws, when they disappeared.

No. 37. 1692; 4th moon, 24th day. At Tea hill, Great stone village, a willow tree several tens of feet was split asunder by lightning, and in the middle a centipede was discovered, minus its head, eight or nine feet long; it was of a dark reddish hue.

No. 38. 1704; 8th moon. Two large fish were seen sporting beneath a bridge; they resembled boats, about them were innumerable small fish.

No. 39. 1725; 5th moon. Locusts.

No. 40. 1728; 11th moon. Sweet dew on trees; taste of honey.

No. 41. 1229; 1st moon. Sweet dew fell; the governor of the province reported it to the emperor Yungching.

No. 42. 1729; 8th moon. Aphides destructive.

No. 43. 1732; 7th moon. Insects ate the paddy.

No. 44. 1733; 7th moon. Aphides ate above half the rice.

No. 45. 1738; 10 moon, 5th day. Sea birds came in vast flocks and devoured the crops; they remained a month.

No. 46. 1740; 4th moon. Mrs. Hiame Luh had three sons at a birth.

No. 47. 1740; 10th moon. Wild birds filled the heavens and damaged the crops.

No. 48. 1752; 11th and 12th moons. During these two months, sweet dew fell five times.

No. 49. 1756; 6th moon. An insect 蜂 produced; that summer the weather was cold as winter, and the crops failed.

No. 50. 1760; 7th moon. An aphid damaged the rice.

No. 51. 1768; 10th moon. A tiger wounded men; chased by husbandmen to Kwang hill, where they killed it.

No. 52. 1768; 8th moon. Fishermen caught a tortoise; on the belly were the characters perfectly distinct 子午 *tz' nu* [horary characters].

No. 53. 1775; 10th moon. Sweet dew fell.

No. 54. 1776; 8th moon, 17th day. Sweet dew fell on trees and vegetables, glistening like eyes; the taste was like that of sweet-cakes; it fell for three nights.

No. 55. 1777. Grubs of young locusts appeared; after a few days they were found clinging to the grass dead.

No. 56. 1780; 1st moon. Sweet dew fell.

No. 57. 1784; 7th moon. Following the tide, there came several myriads of centipedes, which entered the canal at Tsihauching; people did not dare drink the water.

No. 58. 1788; 12th moon. Sweet dew fell for three days.

Note. ALBINAS. Nos. 3 and 25 were perhaps Albinos. TRIPLETS. Three cases are recorded between 1367 and 1640. The number should be doubled, for it is to be presumed that there was as many cases of triplet girls.

LOCUSTS. The harmlessness of some of these swarms is noteworthy, as also the fact that in periods of drought they are of more frequent occurrence. Since the opening of this port to foreigners, viz. 1843, this part of the country has been several times visited by them. In Chihli they committed great ravage, but here their force seemed spent, doing but little harm. Depredations from other insects and crabs are recorded.

BLOODY AND INKY RAIN. Presuming that these were the secretions of birds and insects, they have been placed in this subsection.

SWEET DEW. This is also probably an animal secretion. The report sent to Yungching respecting the phenomenon, attributed it to the virtues of the monarch, which called down this signal manifestation of heaven's favor. His Majesty gracefully declined taking the honor to himself, as it did not fall in the palace; but ascribed it to the goodness of the officers and people of this place, and enjoined on them the duty of acknowledging and proving themselves worthy of the heavenly token.

TIGERS. That this part of China should sometimes be visited by hungry tigers, will be thought less strange, when it is borne in mind that one of these animals, large and fierce was killed a few months since at Amoy.

WHALES AND SEALS. Reference seems to be made to these animals in the above record.

Sub-section 3. PSYCHOLOGICAL.

No. 1. A.D. 441. At Lau district, a young woman on a windy rainy night went wildly into the city; she perceived that she had gone from home, and that her clothes were not moistened; at dawn she went to the gates of the magistracy, and desired word to be sent to the officer saying,—"I am a heavenly messenger; his worship must rise and show me in, and he shall become rich and powerful; but if he refuses, a calamity will befall him." "He treated her as one raving, and put her in prison;" she was found by her friends, and her release procured in a few days. Twenty days after, the magistrate was capitally executed.

No. 2. 1332; 6th moon. A rumor rose among the people, that young men and maidens were to be seized for slaves; instantly all were married or betrothed.

No. 3. 1489. A rumor arose in the market place, that soldiers were coming, when there was a general flight; women threw themselves into wells and were drowned.

No. 4. 1554. At that time there were many phantoms and supernatural occurrences at Tsingpu. The wife of the district magistrate took alarm and died at seeing a toad jump out of a bowl as she was eating. The animal jumped about, was pursued, and could not be caught.

No. 5. 1557. Summer, a black apparition 青 *shang* was seen. Winter, phantom fires were seen, like lighting boats floating on the water.

No. 6. 1559; 8th moon. An idle rumor was spread that a fox had become transformed into a sprite; from night till morning people beat gongs.

No. 7. 1568. A rumor prevailed that the emperor had sent officers to get virgins for the palace; children of every age were married or betrothed, and very many were badly mated.

No. 8. 1590. When there was a calamity from an inundation of the sea, above 10,000 persons drowned, and the survivors were attending to their interment, there was an alarm that Japanese were coming, all fled to Shanghai city, and several thousand were trampled to death.

No. 9. 1636; 2nd moon. A rumor got abroad that a fox had been metamorphosed into a sprite.

No. 10. 1636. On an alarm that Japanese were coming, people all fled from the sea-side.

No. 11. 1632; 2nd moon, 19th day. An alarm in the day time, in consequence of the hissing and screaming of demons everywhere in town and country.

No. 12. 1620; 1st moon. At daybreak a hissing was heard, as of several tens of demons; a noise as of carts or birds, extending from south-east to north-west.

Note 1. Panics sometimes seize the public mind in China, spreading like epidemics—sometimes from superstitious fears arising from inexplicable phenomena, and at other times the result of a hoax. The above affords instances of both kinds.

2. It will be observed, that our grouping or classification of facts is defective. It will, however, be found more convenient than the simple chronological arrangement of the authorities quoted. Comets, eclipses, and conjunctions have been omitted, as also cases of conflagration, and cases of pious fraud.

ARTICLE IV.

ON THE ANCIENT MOUTHS OF THE YANGTSÏ KIANG.

BY THE REV. J. EDKINS.

Read before the Society, March 18th, 1860.

WHILE the Yellow River has been a source of constant trouble and expense to the Chinese government through changes in its direction, the Yangtsï kiang has for many years past retained its present course unaltered. But evidence exists in the books of the country that at an earlier period it flowed to the ocean, not as now through one broad channel, but through three. Of these the southernmost proceeding into Hangcheu Bay was the largest.

The most ancient account of Chinese geography is that found in the Book of History or Shu King. One of the early chapters in that work is called Yü kung. This is the account in question. It is said to have been written by the emperor Yü, who lived about B. C. 2000. He was actively engaged in subduing the inundations of the time, known as the Chinese flood. When this work was done, he prepared a general description of the country, and afterwards became emperor. He says, that the Three Rivers (kiang) empty themselves into the sea in the province of Hangcheu, by (as he appears to mean) separate embouchures. Of these he mentions the northern under the name, Peh Kiang, North river, and the central under that of Chung Kiang, Middle river. The reason why the southern branch is not particularly referred to probably was that it was the principal stream.

In the T'sien Han shu, History of the early Han dynasty, by Panku, who lived soon after the commencement of the Christian era, it is said that the water of the Kiang enters the sea at Yü-yau, a locality indicated by the city of that name thirty miles to the west of the modern Ningpo. He also states that the parting of the branches occurs at Shihc'heng and that the southern branch proceeds from this point (which is a little above the present C'licheu fu), and enters the sea at a distance of 1200 Chinese miles, or 400 English miles.

The author of the celebrated dictionary *Shwoh wen*, who wrote about the same time, states under the word Cheh 浙 that the water of the 江 Kiang (now called Yangtsi Kiang) proceeds eastward to Kweiki (the modern Shauhing, midway between Hangcheu and Ningpo), and is called Chehkiang.

The river that flows by Hangcheu from the southwest, now known as the T'sient'ang is supposed by some authors to have been the Chehkiang, and gives its name as such to the province of which Hangcheu is the capital. But the old branch of the Yangtsi, called the Southern Kiang, we must regard, according to the most natural interpretation of passages in ancient writers, as the true Chehkiang.

In European maps the whole arm of the sea up to Hangcheu is called the gulf of Hangcheu, but in the language of the inhabitants, all the narrow part of the gulf is considered to be the widened channel of the T'sient'ang kiang.

This gulf forms an embouchure worthy of the greatest of Chinese rivers when it followed its ancient course. But where did it enter? The most probable opinion is, at a point a little to the north-east of Hangcheu. If a broad branch of the river once flowed from the T'aihu, at its south-east corner along the low land of that region to Shihmen and T'angsi, it would pursue a south-westerly course till it bent round the hills of the latter town, and then turning to the east would coincide with the present gulf till it reached the broad sea at Yütau. The old river bed between the T'aihu lake and C'hicheu fu would lie by the modern cities Ningkwoh fu and Kwangteh, and in a direction nearly east and west.

The present great lake of Suchu, the T'aihu, was formerly spoken of as the five lakes, Wuhu. The alterations that have occurred during the progress of ages have very much altered the form of the land surface, so that we cannot now see the reason of the name. The Kiang is said in the writings of Meh ti, who lived about four centuries before Christ, to have flowed towards this collection of lakes in an easterly direction. This representation seems to imply that it passed through them to the sea. Now according to the theory of modern Chinese geographers, the southern and central branches of the river were both connected with the lake, one on the south, and the other on the north of it. The third branch, Pehkiang, which constitutes the sole remain-

ing channel of the river, has and had no special connection with the lake.

Two thousand years ago, great part of the Shanghai plain, as the region east of the T'aihu is called by foreigners, was not yet reclaimed from the sea. The cities nearly twenty in number, under the jurisdictions of Sungkiang and T'ai't'sang south of the Kiang, and of T'ungcheu and Haimen north of it, have grown up on what was then a waste. Land to the extent of perhaps fifty miles in longitudinal width has been added to the old sea-coast, and has become inhabited by a dense population on both sides of the present embouchure. The last great accretion is the island of T'sungming in the very mouth of the Kiang, attached to T'ai-t'sang, as a separate district, only three centuries since. This island is still enlarging rapidly.

The land from the modern Shanghai forty miles westward to K'wenshan, twenty miles from Sucheu, is probably new. At K'wenshan or near that spot the middle branch of the river entered the sea. All to the eastward is flat alluvial land, elevated only a few feet above the sea, and protected from incursions by a double embankment.

Some incompetent Chinese geographers have tried to find the three great branches of the Kiang, spoken of in early writers, in streams which have within the Christian era conveyed the waters of the T'aihu to the sea. Among these the best known in history is the Wusung, which proceeds by Sucheu and K'wenshan to Shanghai, which place it passes on the north, and then flows into the Yangtsi Kiang by the town marked in European maps as Wusung. Formerly at twenty miles distance from the lake, two branches parted from this river, the one in a north-east direction, entering the sea at about twenty miles above Wusung, and the other proceeding to Kanp'u on the south-east, and there reaching the gulf of Hangcheu. These were called the Leu Kiang, and the Tungkiang. The region traversed by these streams is mostly that which has been recovered from the sea, and the Three Rivers of antiquity must therefore be looked for on the western side of the T'aihu. The Wusung Kiang however is important as being the outlet to the sea of the ancient central branch of the Great Kiang. That branch commenced at the modern city Wuhu, passed the cities of Kauchun and Ihing, and after traversing the T'aihu, reappeared as the Wusung Kiang of the east.

At present the water of the streams on the east of the lake all flows to the east and north-east, and ultimately joins the waters of the Yangtsi at Wusung and other outlets above that point. From Wusung round to Hangeheu no streams communicate with the sea. The system of embankments now in operation was established in the seventh century of our era. The river which entered the sea at Kanp'u sometimes called Tungkiang, and at other times Kuhshui, was then finally closed. The object of this embankment was to keep the waters of the sea from spreading salt over the adjacent country, and thus interfering with its fertility. A strong tide enters at Wusung and proceeds up the country for sixty miles or more, but it is composed entirely of fresh water, that namely of the great Yangtsi itself. The well water all over this district has in it a considerable quantity of salt, showing that there is much of that mineral beneath the soil, remaining there from former visits of the sea when the embankment was still not formed.

The entrance of a stream from the T'aihu, into the sea at Kanp'u in former times is important as bearing on the question whether that town is the same as the Canfu of the Arabian travellers in the T'ang dynasty. When there was a river's mouth at that spot, it would naturally attract the principal trade of the adjoining gulf. From that point to the eastward there are no hills on the sea-coast except the few which protect the harbour of Chap'u. The remainder of the coast is composed entirely of newly formed alluvial land, lying low and protected by an embankment.

If the point of observation be transferred to Hangcheu, we have there a city which is washed on its western side by the lake known as the Sihü, and celebrated throughout China for its beauties. That lake is formed by water from the hills near it. The city formerly stood on the south-west of it, but now it is on the south-east. The ancient name of the lake was the T'sien shui 錢水. The old sea embankment was on the landward side of the modern city, the site of which formerly belonged to the sea. This embankment passed over the ground now occupied by the Chau'ing monastery near the north-west corner of the city. The T'sienshui was anciently a small river. When the present lake was formed out of its waters, the embankment was named from it T'sient'ang. Then this double name was applied to the Hangcheu river, the T'sient'ang kiang, formerly called Kuhshui.


The Hangcheu river anciently denominated the Kuhshui, and also spoken of under the name Tsienkiang 漸江 in the dictionary Shwohwen, has been sometimes mistaken for one of the three rivers of the emperor Tayü. According to the upholders of this view, the Wusung kiang, the Tsien kiang, and the Fuyang kiang are the three rivers meant, but this is a forced interpretation, and it is undoubtedly more natural to consider the Three Kiang as the branches of the one great river, which was known anciently as the Kiang, and more recently Yangtsï kiang, or Takiang.

The ancient province of Yangcheu extended from the Poyang lake to the sea, and included in it Sucheu and Hangcheu. When the river reached the Poyang, and divided into three branches passing through the province in three directions, it was natural that it should receive the name Yangtsï which it now bears in its eastern portion. The designation of this ancient province is also retained in that of the city Yangcheu fu to the north of its modern course. Looking simply at the proper meaning of the word Yang, "extend," the name of the river may be rendered, "the extender." From a fortuitous coincidence in sound with the word *yang*, ocean, the name has been occasionally written with the character for ocean, viz. 洋 instead of 楊, but this circumstance should not be taken as affording any guidance in the etymology of the word. The second word 子 *tsi*, does not in this case mean child or son, but corresponds in use to our suffix *er* in "the extender."

Our attention must now be directed to the western part of the Yangtsï. In the Poyang lake, anciently called P'engli, we have a body of water which is formed partly by a stream from the south, and partly by the great Kiang itself. The Han river, a little above adding the volume and force of its current to that of the larger river, was, according to Chinese theory, the cause of the formation and continuance of this lake.

Some scholars of the T'ang dynasty, finding in their time but one outlet to the Yangtsï, concluded that in explaining the three branches of the Yükung, they ought to look no farther than to the two principal feeders of the Yangtsï, viz., the Han river entering at Hank'eu, and the Yuchang which contributes its waters through the Poyang lake.

This view was partially favoured by Tsai Shen, the editor of

the popular edition of the Shu king, and a pupil of Chufu tsï, but he adopted himself in preference the opinion also originated in the Tang period, that the  Three Rivers of the Yü kung, were three streams which convey the waters of the T'aihu to the sea. This is a remarkable example of the imperfect criticism of the school of Chufu tsï, and with it of the text books employed since his time in education in China.

The better scholarship of the present dynasty has pointed out many of these faults in the criticism of the Sung period. The reason is found in this case, in the lapse of time since the old branches of the Yangtsï had disappeared. In the third century the southern branch ceased to flow by Hangcheu, and in the seventh, the embankment was made which cut off all communication with the sea along the north coast of the gulf of Hangcheu.

The Kinsha kiang, or Golden Sand River which rises in Tibet, is described in foreign books as the Yangtsï kiang. By natives however it is represented as a tributary, and the true Yangtsï kiang is considered to be the Min, a river which has its sources in the Min mountain in the north part of the province of Sich'wen, passes Ch'engtü the capital and joins the Golden Sand River at Suchou. The name Min is in old books applied to the whole river very frequently. In the geography of Yü, the Min mountain is mentioned as the source of the Kiang, the Great River. The emperor Yü began his labours in the north-west of China, and continued them to the south-east. The Yellow River and the Yangtsï with their tributary streams were successively subjected to his attention, and were made to promote the productiveness of the land instead of being mischievous to it. He was buried at that spot where he terminated his great engineering works. His tomb at Kweiki, the modern Shauhing, is carefully kept by his descendants. He found his grave very suitably by the ancient mouth of the principal stream of the Yangtsï, and he is still worshipped there after the lapse of 4000 years.

The bearing on geology, of this investigation by modern Chinese authors into the history of their greatest river, will be obvious to every one. The same causes which have gradually produced this great alluvial plain, on which Shanghai and thirty or more other cities were built, are still in operation gradually forming fresh land to the seaward, filling up old channels, originating new ones, and by degrees increasing the elevation of the land. With-

out overflowing its banks and depositing its sediment upon wide breadths of country, this river does its work quite as effectually, by the help of the powerful tides of the Pacific, which enable its mud-laden waters to enter the thousand little canals that have been made by man for the irrigation of the fields. The decay of vegetable matter combined with artificial irrigation raises the surface, and would, if continued sufficiently long, render the whole region at length entirely independent of the embankments made round the entire sea-coast for the security of agriculture.

NOTE A.

The most important passages on which the preceding criticism depends, are those from the geography of Yü. The first says, "The Hwei and the sea both belong to Yangcheu. The P'engli (Poyang lake) being fixed, the bird of light had a place of rest. The three rivers having entered the sea, the Chientseh (T'ai hu lake) became firm in its place."

The second says, "The Fanchung mountain gives origin to the Yang river. Flowing eastward it becomes the Han. Yet further to the east it is the T'sang river. Passing the Sanshi, it proceeds to Tapièh and then running south enters the Kiang. Going eastward the waters collect into a lake and thus form the P'engli. Travelling on to the east the river is called the Peh kiang, and with this name enters the sea. The Min mountain (in the north part of the province of Sic'hwen) gives origin to the Kiang. To the east there enters a tributary stream, the C'hi. Again it travels in the same direction till it receives the Fung (at Changsha). Passing the nine rivers (Kieukiang, said to be the Tung'ing lake) it proceeds to Tungling. The waters of the Tung' collect into a lake to the northward. A branch going eastward is called the Chung kiang, and under that name reaches the sea."

According to Cheng k'ang c'heng of the Han dynasty, as quoted in the Han commentary on the classics, the Tung' is the same as the Nankiang. The same work also cites from him the statement that the three rivers separate at the P'engli lake and enter the sea by different embouchures. These testimonies are highly important, says Yuen yuen, an author of the nineteenth century, as an early commentary on the preceding passages of the geography of Yü, and particularly as asserting the identity of the Tung', *bend to the eastward*, with the Nankiang.

NOTE B.

Some references to important passages in intermediate writers bearing on the question are here placed together.

Kwoh p'oh, a writer in the Tsin dynasty, A. D. 265 to 419, in his comment on the Ri Ya, explains the three rivers of the emperor Yü as being the Min kiang (i. e. the present Yangtsi kiang) the Chehkiang, and the Sungkiang.

It was Weichau, in the time of the Three Kingdoms, who represented the three Kiang which surrounded the Wu country to be the Sungkiang, the T'sient'ang kiang and the Fuyang kiang. This is quoted in the work *King tien shih wen*. He must however have said Chèhkiang, changed erroneously for T'sien t'ang by later writers. It was Chang sheu tsieh of the T'ang dynasty who, in his commentary on the Shih ki called Shih ki cheng i, says, "According to the geography Kwah ti chih, the three rivers of the Yü kung meet at the P'eng li lake (Poyang) and proceed as one river to the sea."

In the Chih fang, the topographical division of the classical work called the Cheu li, the rivers of the province King chau (Hukwang) are stated to be the Han and the Kiang, while those of Yangcheu are said to be the San Kiang, *three rivers*. This tends to prove that the San Kiang, three rivers of the Yü kung must mean three branches near the sea, and not above the Poyang lake.

K'ung ngan kwoh of the Han dynasty says, "The waters of the Han, enter the Chen tseh." This agrees with what is said by other ancient writers respecting the entrance of the waters of the Kiang into that lake, the modern T'aihu.

NOTE C.

Among the authors of the present dynasty who have carefully pursued this investigation into the ancient mouths of the Kiang, Yuen yuen, who wrote in the early part of this century, deserves particular mention. Most of the information collected in this paper and the accompanying notes, is taken from his work *Chèh kiang t'u k'au*. He commences that treatise in the following manner.

"Changes in the courses of rivers in progress of time are very numerous. The smaller rivers have become so altered that it is difficult to trace them. But what is more remarkable is that there should be great errors respecting the channel of the great rivers, whose position was determined from the time of Yü. The principal mistake of this kind is that which confounded Chèhkiang with T sien kiang and the Kuhshui, instead of identifying it with the Minkiang. My home is at Yangcheu on the north of the Pehkiang. While I was a student of the law at Hangcheu, I had occasion to travel much through the Wukiang, Yueh (Hangcheu) kingdoms. In my study of the classics and the histories and my personal observation of the topography of the localities just mentioned, I arrived at the conviction that the Great River and the Chèhkiang were originally one. I found proof that the Chèhkiang was no other than the Nankiang of the emperor Yü. During the last few centuries, geographers in their criticisms on the Three rivers of Yü, have missed the truth. I have therefore collected citations from ancient books with illustrative maps, and exhibited my results in this treatise. The following are the conclusions to which I have come."

"The Kiang takes its rise at the Min mountain. The three kiang of the Yü kung are the Pehkiang, the Chungkiang and the Nankiang. The Pehkiang is the Minkiang, proceeding north of the Yangcheu, Tant'u, and Changcheu to the sea, and is the same with the Minkiang. The Chungkiang is the Minkiang proceeding by Kauchun to the sea. The Nankiang is the Minkiang proceeding from Ch'icheu fu by Ningkwoh to the T'aihu. Thence it passed Wukiang, and T'angsi in a south-westerly direction to Hangcheu, where it bent to the eastward towards Yüchau and there met the sea."

"That which constituted the old channel of the Chèhkiang, is now a strip of fertile land leading from Wukiang about one hundred English miles to Hangcheu, with a narrow stream of water in its centre, which is the canal for the conveyance of the imperial grain" (i. e. the Grand Canal).

"The land westward from Haining is somewhat elevated, but from the old salt warehouse Lauyen t'sang onward to the southwest towards Hangcheu, a tract embracing fifteen or twenty miles, the soil is low, easily accessible to the sea-tide, and consists in many parts of moveable sand. In some instances grounds devoted to mulberry cultivation have given way to the incursions of the sea. When an embankment was in process of construction, it was found difficult to drive piles in firmly. The deeper they were driven, the softer was the soil. On the north-east of Lauyen t'sang, the soil is on the other hand perfectly firm and solid. Besides the tide at high water is seven or eight feet higher than the Grand Canal at the Hangcheu custom-house, so that did not the embankment prevent, the sea must flow inwards up the canal to Kiahing. Thus the preservation of the embankment in considerable strength is of great importance."

"The evidence derived from the present character of the region through which the ancient Chèhkiang is supposed to have passed confirms the conclusions drawn from the old geography of Yü, the Shwohwen and other works."

ARTICLE V.

DISSECTION OF A JAPANESE CRIMINAL.

BY DR. J. L. C. POMPE VAN MEERDERVOORT.

Read before the Society, December 27th, 1859.

THE 30th of September last, I received a message from the Japanese authorities, stating that at length the governor of Nagasaki was authorized by the court of Yedo, to comply with my repeated requests, to be permitted to use the bodies of executed criminals, in communicating practical instruction in anatomy and operative surgery.

For a long time I had urged this both upon the local authorities of Nagasaki, and upon the high imperial government at Yedo, to which I sent an explicit memorandum, by the kind aid of Mr. Donker Curtius, Netherlands Commissioner in Japan, showing the absolute necessity of subjects for this purpose. Many times they reiterated their assurance that the first executed criminal should be delivered to me, but till now they had never fulfilled their promise. The customs, and still more the religious institutions, of this Buddhist people caused them to feel a very great reluctance to use dead bodies for such purposes, and especially in the presence and under the direction of a European. Besides this, some of my pupils thought they would be able to learn anatomy nearly as well from my oral descriptions, and to understand my demonstrations from engravings; and several of them did not like to see anatomy taught in any other way. My experience made me aware long ago, that the Japanese are not a people to be convinced only by reasoning. *To convince them really*, they must themselves feel their wants, and then only will they change their old customs and institutions, to which they are all thoroughly wedded; I must acknowledge that they have so much that is good in their institutions and ideas, that I often think it is a pity for strangers to come and introduce sweeping changes among them at once.

But since, when once thoroughly convinced, they like to change

as soon as possible, the greatest difficulty is to know whether they are really convinced, or if they only falsely profess to be so. This probably is in some cases quite impossible to ascertain. I never saw a people in the world, or at least in the several eastern countries which I have visited, who understand so well how to abnegate themselves, if it is required of them, as the Japanese.

I believe it is not possible for a European to have a true Japanese friend; it is even a very exceptional case among the natives themselves. Abnegation and formalities surround the Japanese from his earliest youth.

Yet I never lost all hope, from the time when I made my first request in 1857. I only endeavored as much as possible to let the pupils themselves feel, at every convenient time, the absolute necessity of practical instruction and exercise in anatomy.

The 3rd of September last, I at length received a message, as I have said above, that on the 9th of September (the 13th *hatsi-goats*) an execution would take place, and that I could dispose of the body just as I pleased. The pupils, who came to inform me, were indeed filled with pleasure, and they requested me to keep this communication very secret (the Japanese call this an inside matter; all that is made public they term an outside matter); for they feared that the people perhaps would try to prevent it, or at least occasion hindrances. I erected a temporary room, as good as the short time intervening permitted me to construct, knowing of the execution only on the day before it was to take place, which rendered it impossible to build an anatomical theatre, in all points proper for the purpose. Besides this they would not allow any permanent building to be used for this purpose; it must be broken up and destroyed immediately after its being so used. Such was the beginning of a matter which will bring about great improvements in their practice of medicine. They have chosen as the site of this building, the top of a very high rock near the shore of the bay. This rock it is very difficult to approach, as well from the sea-side as from the land; and both ways were watched by a guard to prevent any one from entering without a card of admission.

The execution did not take place in public, but in the inner court of the prison. This was done principally to prevent a popular disturbance, and to make it the more easy to transport the corpse to the anatomical room.

The greatest criminals who are condemned for capital crimes in Japan, such as regicide, parricide, murder of one's teacher, incendiarism and lèse-majesté, must always be executed in public, after they have traversed the largest streets lying on the back of a horse. The head of such criminals is exposed during three days to the population. Other crimes of inferior classes are also sometimes punished by death. Then the principal local authority may execute this punishment privately in the prison. This man had been punished here already twice before for robbery, and had been twice branded with a hot iron. He bore on his visage the signs of his infamy : it was now the third time he had committed robbery on the public road, and he was condemned to death.

A number of requests came even from men not medical, to obtain permission to assist at the dissection. They wished to obtain an accurate idea of the construction of the human body. However praiseworthy their inquisitiveness might be, I thought it better not to allow their presence the first time ; and therefore I refused all such requests of non-medical men, with the exception of one I allowed to assist, who was a surgical-instrument maker, and very anxious to know accurately for what purposes different instruments were used, and what adaptation they required. In this way he could greatly improve his instruments, and perhaps make the Japanese very soon independent of foreign industry of this kind ; for it is a fact that they make very good instruments indeed.

The 9th of September, I commenced dissection at 8 o'clock, in the presence of twenty-one of my own pupils, and twenty-four other medical men from Nagasaki and its environs ; in all forty-five persons. This number may prove that the Japanese felt a great interest in the affair. I told all these gentlemen that during these practical studies they must always bear in mind their real object ; and never forget for a single moment that these corpses were only subjects for scientific examination, and that all they might see and do must have an earnest character, while every jesting remark and all unbecoming conduct, having for their object the dead human body must be degrading to any man, and much more to a physician. This warning had a very good influence indeed, and I did not see anything done unbecomingly during the time I worked with them.

The execution was performed by a master hand, and the wound

showed evidently that the head was cut off at one stroke. Such executions are performed with the ordinary Japanese short sword, for this purpose made very keen. I could not observe any fault in the wound, the sword-cut was given just on the middle of the spinous process of the 6th cervical vertebra, and the vertebra was split through. The head was brought to me separately in a basket.

The execution takes place in the following way. The criminal is placed on his knees, while his hands are placed with the palms uppermost, but he is not blind-folded. A foot and a half before the place where the man is kneeling, they make a hole in the ground, several feet long, broad and deep. The executioner is at the left side, and an assistant also in a kneeling position on the right of the criminal. The latter takes the right foot in his hand and makes three signals behind the criminal's back. At the third signal, the head is cut off and falls into the hole. At the same moment the assistant lifts up the right extremity with some force, so that the body falls forward and the bleeding neck comes just above the hole. But I will return to the details regarding the dissection.

In the first place, I opened the chest and the abdomen, and showed the Japanese the normal position and the mutual relation of all the different viscera; with the position of the pleura and peritoneum. Afterwards I took out the contents of the chest and demonstrated them. These were all quite normal so that they furnished excellent examples for anatomical demonstrations. So were the abdominal viscera, with the exception of the spleen which was considerably hypertrophied. I could not demonstrate everything so accurately as it ought strictly to have been done, for I had only the morning till 2 o'clock to spend upon these cavities. After finishing this, I taught them the most necessary and general rules for making anatomical preparations. I dissected one arm, and I let them dissect the other.

The results of their work were truly astonishing, considering that, for the most of them, it was the first time they had seen a dissection, and only one had before made an anatomical use of a body at Yedo. I exhibited the anatomical plates of Weber in the dissecting room; so that the pupils might check and confirm their observations, if they worked and studied with an honorable ambition.

Late in the evening when it grew dark, they were obliged to stop their operations, after having worked eleven hours nearly without intermission, taking only a quarter of an hour for dinner. I requested to have the subject still for one day; this was however very difficult to obtain, for the bodies of those decapitated must be buried on the day of the execution. But my pupils had made the right use of the first day, and they knew how to procure the governor's permission to retain the body till the night of the 10th.

The following day I proceeded with the left side, and dissected the regio inguinalis in order to give a correct idea of the inguinal canal. I dissected this part, and afterwards I shewed at the left inferior extremity the most necessary surgical operations, as follows. I proceeded with placing a ligature on the femoral artery as also on the popliteal, the disarticulations and amputations of the toes, the disarticulations of the tarsus, the amputations of the lower part of the crus and the amputation of the thigh.

At these different operations I assigned to the pupils the functions of assistants; and afterward they performed the same operations on the other leg. In this way, one corpse has taught them a great deal; and chiefly it has convinced the pupils of the necessity of practical exercise in anatomy and surgery. I was perfectly satisfied with them. The time being too short to prepare and demonstrate the brain, the eye, ear, and testicles, I put these several parts in spirits and brought them without any difficulty to the medical college house, where I afterwards demonstrated them.

In the skeleton I observed nothing remarkable, except that the promontory of the sacrum was very prominent, so that the superior right diameter, from the superior part of the sacrum, to the superior part of the symphysis ossis pubis, was not so large as in general, and the flexure or turning of the inside of the sacrum was deeper than is commonly seen. The coccygeal bones were more pressed inside the pelvis, which may have been the reason of this exception. I believe Dr. Thr. Ph. Von Siebold, the well-known Japanese philologist, long ago made some experiments regarding this same peculiarity. That learned man brings this deviation into connection with the question respecting the development of the tail by some eastern people!

Herewith I finish my notices respecting the dissection, hoping

the Japanese authorities may continue to permit the bodies of executed criminals to be used for this purpose; for I am convinced that they will promote thereby a real and great improvement in their future medicine and surgery; and I should deplore it very much if they should not continue to advance in the scientific path, after these first steps have already yielded such admirable results. I still have to mention what was done by the authorities of Nagasaki to familiarize the people with the idea of dissection, and what they said and did to prevent it from being offensive to the population.

In the evening at 6 o'clock, the body was brought to the public burning place outside of Nagasaki, to be burned there. This is customary with a certain religious sect called *icos* or *montos*. The body is placed upon a large quantity of burning wood, till all the soft parts are quite consumed. Afterwards the bones are collected and closed up in a stone pot, and this pot is placed in a wooden case and buried. During these different operations some priests are praying for the soul of the deceased, and after accompanying the body to the cemetery, they there perform their last service.

All these religious customs are forbidden to bodies of criminals who close their life by execution. They regard their bodies as unworthy to be buried with these honors, and generally a few hours after the execution, the body is interred very quietly at a place about one hour's distance from Nagasaki, specially used for this purpose.

Religious services by priests are forbidden. The Japanese idea is that the sinful ghost of the criminal would disturb the honest ghosts of those who were buried in the same cemetery. Nevertheless to take away as much as possible the superstitious opposition of the people against dissection, the Nagasaki authorities spread everywhere a report that I had desired this, and rightly, because the cholera morbus visited Nagasaki the two last years and destroyed a large number of men. They said that I thought the Japanese body must have some peculiarities predisposing it to this sickness, and that I must convince myself respecting the construction of their bodies, in order to be able to prescribe better for them when this fatal disease should come again. This story was very ingeniously invented, and was partly sufficient to satisfy the people.

Besides this, it would be considered that this criminal brought an expiatory sacrifice for all his sins and misconduct, by the use of his body for this purpose, because he was in this way promoting the advancement of science. He should therefore not be subjected to the general treatment of criminal bodies, but priests would be allowed to perform the customary services and prayers. The government would give him a place in the sacred Japanese cemetery, and a grave-stone would also be erected, all at the expense of the authorities.

These judicious measures may be considered as proving the natural civilized feeling of this people; for the general population appreciated all that was done, and I may say that I have not seen or heard anything against it. There has not been the least animosity shown during or after the dissection.

Herewith I finish these notes, with the remark that I regard this step of the Japanese as very important, and as a proof that they will do the utmost for the scientific prosperity of their country. These facts also show that the authorities are not tyrannical, but that they try to surmount antipathies in a gentle and prudent way; and this time they met with perfect success.

DESIMA, 1st November, 1859.

When writing the above, I little thought that my wishes would be so soon complied with; but I must mention that I had another body, also of a criminal executed for repeated robbery, on the 7th of November. I used this also in the same way as the former.

This time there were more than sixty spectators, and what is most remarkable *one Japanese Lady* was also present! She is an accoucheuse, who has studied the medical science, and she earnestly requested me to permit her to witness the dissection, which I allowed, and I must say that she neglected nothing. She always was very attentive and asked me several questions which proved her to be very intelligent; she assisted also in the operations. This second subject was interred in the usual burial place for criminals, although he also had services performed for him by priests, and a little grave-stone from the government. I have now no fear that they will cease to give the bodies.

DESIMA, 17th November, 1859.

ARTICLE VI.

NOTES ON THE MINERAL RESOURCES OF JAPAN, &c.

BY WM. H. SHOCK, CHIEF ENGINEER IN THE U. S. NAVY.

Read before the Society, Sept. 12th, 1858.

IN obedience to official instructions to collect all the information practicable upon the mineral resources of Japan, its advancement in the mechanical arts, sciences, &c., &c., I embraced every favourable opportunity that presented itself for that end. From the best and most reliable information I could obtain, upon the mineral resources of that country, I am of the opinion that her Copper and Iron mines are next to inexhaustable; and from what I have learned already, I think the same may be said also of her Coal.

For a long period the Dutch received at Nagasaki, in exchange for their merchandise, native copper; this exchange however has been stopped for many years past, in obedience to an order from the emperor; the consequence is that no more copper is now produced in Japan than is necessary for their own consumption, which is comparatively very small, thus leaving for a future generation the duty of fully developing one of the most important elements in the wealth of this rich empire.

Iron abounds in various parts of the country, the mines of which are extensively worked, much more so at present than those of copper. I have not succeeded in procuring specimens of the ore for examination; but judging from the articles of casting I have examined of their own construction, it must be of an excellent quality. Specimens of their wrought Iron, cast and blister steel, have been examined with very satisfactory results; and when it is remembered that these people are anxious to avail themselves of all the improvements in the manufacturing arts, as applied in the United States and in England, it is not anticipating too much to expect they will eventually produce these metals equal to either of their productions. All the wrought iron submitted for my

inspection has been *hammered* iron, in small flat bars varying from 12 to 20 lbs. each; this I attribute to a want of proper machinery for making heavier bars and its being better suited to their purposes, as they have but very little use for bars of large dimensions as far as I could ascertain.

Their principal iron mine is situated in the northern part of Japan, near Hakodadi; there is one also near Yedo.

From what I could learn upon subject of coal mines, I infer they exist in many, if not in all parts of Japan; I have seen specimens of coal but from *two* mines, one situated within seven English miles of Nagasaki, the other on the Island Kiusiu, more than one hundred English miles from Nagasaki. The first of the Japan coal, we used on board the *Powhatan*, came from the neighborhood of Nagasaki and was received on board at that city, the last from Sikuzen and received on board at Simoda. As I have to report upon the evaporating power of these coals on meeting the U. S. S. frigate *Mississippi*, I shall dismiss the subject for the present, and proceed to state some facts relating to the state of mechanical arts and sciences, applicable to machinery, as I found them in Japan.

Within two years the emperor has determined to establish a Machine shop, with Foundery, and all its appurtenances, at Nagasaki, for the repair of his steamers and the building of others, and has already applied to the Dutch government for a suitable person to superintend and direct its construction, &c. Chief engineer Hardis of the Dutch navy was detailed for that duty, and for the last eleven months has been assiduously engaged in carrying out the wishes of the Japanese government, having received a "*carto blanche*" to order such machinery as he thought necessary; the result has been a large collection of the most modern improved machinery, equal in extent, size and finish to many of the first class Machine shops in the United States.

The spot selected for the erection of the various buildings necessary to the establishment (all of which are well advanced to completion,) is in a beautiful valley sloping down to and terminating at the left bank of the harbour, entering from seaward, and opposite to the town of Nagasaki. It is expected that the whole will be ready for operation in eighteen months from this date. An extensive pier, several hundred feet in length, and extending out sufficiently far to insure twenty feet at low water, is being

built, immediately in front and as a part of the above named establishment.

The Japan apprentice system, as established by the emperor in connection with his Machine shop, is in my opinion destined to result most favourably in the advancement of their knowledge of engineering; so anxious indeed are the Japanese to become familiar with the profession, both practically and theoretically, that several princes and others have sought and obtained permission, from the emperor, to place themselves under instructions and are to be seen daily at their work, busily engaged at the lathe, the vice, or at the forge, as the case may require, while others may be found in the drafting-room preparing the necessary drawings for the various departments.

The Japanese government have now two side-wheel man-of-war steamers of about 900 tons burthen each, one of which, the *Quon-quomar*, is officered and manned entirely by Japanese. Both of these steamers were presented to them by the Dutch government.

ARTICLE VII.

SUPPLEMENTAL MEMORANDUM on the present state of the Magnetic Elements in China and places adjacent, (*vide Journal*
of North-China Branch of the Royal Asiatic Society, Vol. I., No. 2, p. 222,) being observations made during
the year 1859. By Capt. Shadwell, R. N., C. B., late of H. M. S. *Highflyer*.

DATE.	PLACE.	STATION.	LAT.	LONG.	MAGNETIC DIP. MEAN BY TWO NEEDLES.	REMARKS.
1859. April 11th,	Ningpo.	Capt. Patridge's Garden.	North. 29° 52'	East. 121° 32'	43° 7' 9 N.	
September 2nd, ..	{ Vladimir Bay, } Coast of Manchuria.	{ At the point, South entrance } of the Bay.	43 55	135 28	58 37.8 N.	
September 12th, ..	Nagasaki, Japan.	{ A small Cove, North side of } Harbour.	32 43	129 50	45 53.7 N.	
September 22nd, ..	Yedo, Japan.	{ British Consulate, Temple } To-zen-tje.	35 39	139 46	48 21.8 N.	{ The Magnetic variation obtained by observation on shore was 3° 42' W.
October 13th,	Hakodadi, Japan.	British Consulate.	41 47	140 44	55 23.3 N.	
October 25th,	Kanagawa, Japan.	British Consulate.	35 29	139 39	48 8.7 N.	
December 12th, ..	Hongkong.	Wellington Battery.	22 16	114 10	31 21.5 N.	

ARTICLE VIII.

TEMPERATURE OF HAKODADI,

FROM OBSERVATIONS TAKEN AT THE ENGLISH CONSULATE,

FROM OCTOBER 1858. TO SEPTEMBER 1859.

Communicated by CHARLES F. A. COURTNEY, Surgeon.

MOMTH.	MIN.	MAX.	MEAN.
January,	14	42	27
February,	18	48	28
March,	27	60	40
April,	39	69	49
May,	44	72	55
June,	48	77	63
July,	65	81	69
August,	61	80	69
September,	44	70	..
October,	49	66	..
November,	21	60	..
December,	16	41	..

ARTICLE IX.

WINDS AND WEATHER AT CHEFOO,

During seven months of the year 1859.

THE following tables,* kindly furnished for the pages of this Journal, will enable the reader, at once, to form an opinion of the climate of Chefoo and its vicinity—a portion of the Chinese coast hitherto little frequented by foreigners, but now the rendezvous of the French Expeditionary Forces in the Gulf of Pecheli. It is situated on the north side of the Promontory of Shantung, nearly due south from Talien Wan (now occupied by the English forces,) and is some four degrees distant from the mouth of the Peiho, and not very far east from Tanchau fu, one of the new ports specified in the treaties of 1858. Chefoo harbour is in Long. $121^{\circ} 27' E.$, Lat. $37^{\circ} 34' N.$

According to the information furnished by natives of Chefoo, January and February are very cold months, with much snow; April generally wet; May fine; June, July and August more or less rainy, with squalls of wind—weather gradually increasing in heat; November and December, cold with much snow in the latter month. From the way in which the country is cut up into ravines, it would appear that very heavy rains must be experienced at times. The peculiar plan adopted by the inhabitants of heating their sleeping places by flues passing under them, would lead to the belief that the winters must sometimes be exceedingly cold.

From captain John Ward, R. N., H. M. S. *Actæon*, Notices of the coasts north of Corea have been promised us; also we have in hand a few notes respecting supplies of provisions at Chefoo. More of the same kind we shall be glad to receive and publish.

* The Editorial committee are indebted to the liberality of Their Excellencies M. Bourboulon and the Hon. F. W. A. Bruce for the means to print these tables in full. But for their timely assistance, only an abridgment could have been published; and this would have greatly impaired the value of these tables, which exhibit, when studied to detail, some very remarkable peculiarities.

REGISTER OF ANEROID BAROMETER AND THERMOMETER, CHEELY IN CHEFOO HARBOUR, SHANTUNG, 1869.

DATE	BAROMETER					THERMOMETER				WINDS			WEATHER			
	8	12	4	1	5	8	12	4	8	Morning	Noon	Evening	A. M.	Noon	P. M.	
May 1	30.28	30.20	30.16	30.19	30.19	63°	64°	62°	62°	Calm	N E	E N E	Dull	Fine	Fine	At sea
" 2	30.09	30.21	30.22	30.27	30.27	62	62	61	61	N W	N N W	N W by N	do	Windy	Cloudy	do
" 3	30.28	30.25	30.14	30.17	30.17	61	61	62	60	West	E by N	E by N	Clear	Fine	Cloudy	Fulchow
" 4	30.16	30.21	30.24	30.28	30.28	66	70	67	67	Calm	S by W	Variable	Gloomy	Hazy	Windy	do
" 5	30.27	30.25	30.24	30.25	30.25	64	68	70	67	S E	S by W	Variable	Clear	Clear	Windy	do
" 6	30.14	30.19	30.18	30.23	30.24	72	68	66	66	S S W	N E by E	Calm	Windy	Clear	Fine	At sea
" 7	30.22	30.23	30.23	30.24	30.24	58	61	61	58	N E by E	N E by E	S E	Foggy	Clear	Clear	Lat. 39°
" 8	30.24	30.22	30.22	30.22	30.22	56	66	66	66	Calm	S W	S E	Fine	Windy	Foggy	do
" 9	30.08	30.10	30.06	30.09	30.09	67	74	74	66	Variable	S by E	N E	do	do	Windy	do
" 10	29.86	29.87	29.99	30.08	30.08	74	76	76	73	S S E	N by E	N by E	Gale	do	Moderating	do
" 11	30.11	30.10	30.08	30.06	30.06	64	66	68	64	N by W	N by E	do	do	Windy	Windy	do
" 12	30.11	30.07	30.06	30.08	30.08	63	68	72	68	North	North	North	Windy	Cloudy	Dull	Evening at sea
" 13	30.10	30.07	30.05	30.10	30.10	66	68	70	67	S S W	N N W	N N W	Fine	Clear	do	Arr'd at New-
" 14	30.08	30.06	30.05	30.07	30.07	66	68	70	67	S W	S W	S W	Gloomy	Cloudy	Windy	chwang
" 15	30.10	30.11	30.08	30.07	30.07	74	76	76	74	S S W	S S W	do	Windy	Cloudy	do	Newchwang
" 16	30.21	30.20	30.26	30.28	30.28	72	75	76	75	West	West	N W	do	do	do	river
" 17	30.26	30.24	30.21	30.30	30.30	70	74	74	71	do	S W	do	Fine	Cloudy	Windy	do
" 18	30.26	30.29	30.30	30.30	30.36	68	76	77	68	S S W	N N W	N N E	do	do	do	do
" 19	30.30	30.18	30.16	30.12	30.12	69	72	74	68	S E	S W	S W	Hazy	Gloomy	Hazy	do
" 20	30.12	30.10	30.10	30.10	30.10	64	66	67	65	S W	do	Calm	Clear	Clear	do	At sea
" 21	30.17	30.19	30.24	30.22	30.22	70	72	71	70	W S W	do	S S W	do	Fine	Fine	do
" 22	30.10	30.11	30.11	30.08	30.08	72	74	76	73	Calm	E N E	S S E	Dull	Fine	do	do
" 23	30.22	30.24	30.24	30.24	30.26	74	77	80	75	do	do	E S E	do	Clear	Clear	Chefoo harbour
" 24	30.24	30.22	30.19	30.19	30.19	66	68	68	66	do	do	N E	Clear	Clear	Fine	do
" 25	30.18	30.19	30.20	30.22	30.22	67	69	69	67	do	East	do	Cloudy	Clear	Fine	do
" 26	30.21	30.20	30.28	30.28	30.28	70	70	69	69	S W by S	S W	do	Windy	Gloomy	Clear	do
" 27	30.29	30.29	30.26	30.26	30.25	72	74	74	70	S W	S W by W	do	do	Cloudy	Clear	do
" 28	30.12	30.13	30.11	30.11	30.11	70	70	73	70	S W by S	S W by S	S W by S	Rain	Cloudy	Clear	do
" 29	30.18	30.18	30.22	30.22	30.22	70	71	72	69	N E	E N E	E by S	Cloudy	Hazy	Clear	do
" 30	30.24	30.23	30.21	30.21	30.21	71	73	75	70	Calm	do	East	Clear	Windy	Cloudy	do
" 31	30.18	30.10	30.10	30.04	30.04	72	74	74	71	S S W	S W	S W by S	do	Windy	Cloudy	do

[illegible]

DATE	BAROMETER					THERMOMETER				WINDS			WEATHER		
	8	12	4	8		8	12	4	8	Morning	Noon	Evening	A.M.	Noon	P.M.
1859															
July	1	29.86	29.90	29.87	29.89	78°	80°	79°	78°	S W	West	Calm	Fine	Windy	Clear
"	2	29.94	29.96	30.02	29.98	78	80	80	78	N E	E S E	E S E	Fine	Cloudy	do
"	3	30.04	30.02	30.00	30.02	78	82	82	77	East	E N E	Calm	do	Hazy	Clear
"	4	30.00	30.00	29.99	29.98	79	83	82	80	Calm	E N E	do	do	Clear	Sultry
"	5	30.06	30.10	30.10	30.09	78	82	82	79	do	S W	do	Sultry	do	do
"	6	30.08	30.06	30.03	30.06	84	89	89	86	West	N E	S W	do	Fine	Cloudy
"	7	30.14	30.12	30.11	30.10	81	82	82	80	Calm	do	S S W	Fine	Cloudy	do
"	8	30.09	30.10	30.12	30.14	79	79	82	80	E N E	do	Calm	do	do	Fine
"	9	30.11	30.12	30.12	30.15	78	78	82	80	W by N	N by W	West	Cloudy	do	do
"	10	30.14	30.16	30.17	30.20	77	79	80	77	N W	N E	Calm	do	Cloudy	do
"	11	30.25	30.30	30.30	30.28	79	81	80	79	S W	do	do	Windy	Sultry	Squally
"	12	30.27	30.25	30.22	30.22	80	82	80	82	do	S W	S S W	Cloudy	do	do
"	13	30.22	30.12	30.12	30.11	79	80	82	80	SW by W	S S W	do	Cloudy	Sultry	Fine
"	14	30.16	30.16	30.12	30.12	80	82	84	82	S W	S by E	S S E	Clear	do	do
"	15	30.12	30.12	30.12	30.13	82	84	84	81	S by W	S S W	do	Cloudy	do	Squally
"	16	30.10	30.11	30.12	30.12	82	88	89	84	SW by S	S W	do	Sultry	Fine	do
"	17	30.10	30.09	30.07	30.06	83	85	84	82	South	E by N	East	Fine	do	Cloudy
"	18	30.11	30.09	30.06	30.13	83	84	83	82	Calm	do	Variable	Sultry	Thun. & L.	do
"	19	30.08	30.08	30.04	29.99	81	83	82	80	S W by S	Variable	S by W	Rain	Thun. & L.	Windy
"	20	29.94	29.90	29.92	29.99	83	86	87	84	S by W	S S W	S W	Windy	Thunder	Squally
"	21	30.12	30.12	30.18	30.20	72	74	73	70	N W	N W	N W	Fine	Clear	do
"	22	30.16	30.11	30.12	30.12	79	81	83	82	E N E	East	Variable	do	Fine	Cloudy
"	23	30.02	29.99	30.00	30.00	86	93	89	86	SW by W	S W	S W	Sultry	Squally	do
"	24	30.10	30.02	30.09	30.11	78	80	80	79	E N E	N E	E N E	Foggy	Clear	Cloudy
"	25	30.11	30.06	30.10	30.14	79	83	84	81	N E	N E by N	East	do	Cloudy	Hazy
"	26	30.18	30.18	30.14	30.17	80	81	82	80	E N E	E by S	do	Cloudy	Fine	do
"	27	30.12	30.13	30.06	30.08	84	92	90	86	Variable	W S W	S W	do	Sultry	Rain
"	28	30.09	30.06	30.04	30.09	82	93	95	91	SW by W	S W	do	Fine	Clear	Clear
"	29	30.04	30.01	29.94	30.00	86	92	92	90	SW	E by S	S S W	do	Clear	Fine
"	30	29.84	29.81	29.80	29.80	84	93	96	88	S S W	S W	Variable	Sultry	Cloudy	Squall
"	31	29.74	29.76	29.80	29.86	82	84	84	84	SW by W	W S W	North	Rain	Cloudy	Clear

Aug.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	29 94	29 95	29 96	29 99	78	79	79	78	78	N by E	N by W	N by W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
	30 02	30 01	29 98	30 02	75	78	80	75	80	N by E	N by W	N by W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	29 95	29 96	29 94	29 92	79	82	80	79	82	East	East	East	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	29 90	29 90	29 89	29 96	79	79	80	79	80	Calm	Calm	Calm	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	
"	29 84	29 83	29 86	29 87	79	81	84	80	81	W by S	W by S	W by S	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	29 80	29 76	29 76	29 86	80	81	81	80	81	N N E	N N E	N N E	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	29 96	30 01	30 02	30 12	80	80	81	79	80	N N E	N N E	N N E	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 14	30 14	30 12	30 13	78	80	80	78	80	W N W	W N W	W N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 13	30 13	30 14	30 20	78	81	82	78	81	Calm	Calm	Calm	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 22	30 22	30 20	30 20	78	82	83	80	82	N N E	N N E	N N E	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 20	30 18	30 16	30 19	78	84	84	80	84	do	do	do	N N E	N N E	N N E	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 20	30 21	30 21	30 21	82	86	87	84	87	do	do	do	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 22	30 22	30 20	30 18	82	86	86	82	86	do	do	do	N N E	N N E	N N E	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 22	30 18	30 15	30 12	82	87	87	81	87	E by S	E by S	E by S	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 07	30 00	29 96	30 06	84	90	86	90	86	S by W	S by W	S by W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 16	30 18	30 20	30 24	77	78	78	78	76	N by W	N by W	N by W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 30	30 32	30 32	30 35	78	80	80	78	80	North	North	North	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 30	30 30	30 30	30 35	77	80	80	78	80	N by E	N by E	N by E	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 30	30 25	30 22	30 23	78	82	83	80	83	Calm	Calm	Calm	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 12	30 11	30 09	30 08	79	82	83	81	83	West	West	West	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	29 08	30 05	30 04	30 05	80	83	83	80	83	W S W	W S W	W S W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 09	30 09	30 09	30 16	79	83	84	82	84	West	West	West	N N E	N N E	N N E	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 24	30 24	30 24	30 28	80	83	83	80	83	Variable	Variable	Variable	E S E	E S E	E S E	E S E	E S E	E S E	E S E	E S E	E S E	E S E	E S E	E S E	E S E	E S E	E S E	E S E	E S E	E S E	
"	30 33	30 33	30 30	30 29	81	84	83	80	84	E S E	E S E	E S E	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 36	30 34	30 33	30 32	82	84	84	81	84	E by S	E by S	E by S	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 28	30 26	30 24	30 24	80	83	84	81	83	West	West	West	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 32	30 30	30 18	30 25	80	82	83	80	83	S W	S W	S W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	30 34	30 34	30 22	30 26	76	76	74	72	74	N E by N	N E by N	N E by N	N N E	N N E	N N E	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W
"	31	30 18	30 13	30 11	72	72	74	71	71	do	do	do	N N E	N N E	N N E	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W	N N W

DATE	BAROMETER				THERMOMETER				WINDS			WEATHER			At sea do Chefoo
	3	12	4	8	8	12	4	8	Morning	Noon	Evening	A.M.	Noon	P.M.	
1859															
Sept. 1	30.20	30.19	30.18	30.22	74.0	76.0	78.0	75.0	N E by N	North	S E	Windy	Cloudy	Clear	At sea
" 2	30.22	30.18	30.16	30.16	76	80	82	77	Calm	E S E	Calm	Cloudy	Cloudy	Clear	do
" 3	30.05	30.03	30.03	30.04	78	80	82	78	W S W	N W	W N W	Clear	Fine	Clear	Chefoo
" 4	30.08	30.07	30.06	30.05	77	80	81	77	West	N E	Calm	Clear	Fine	Fine	
" 5	30.07	30.06	30.06	30.05	78	81	82	78	Calm	do	E S E	Windy	do	Clear	
" 6	30.00	29.85	30.00	30.00	78	84	82	78	Variable	N N E	W S W	Windy	do	Fine	
" 7	30.02	30.02	30.01	30.04	75	82	85	80	W N W	N by W	N W	Windy	do	Clear	
" 8	30.09	30.07	30.06	30.06	78	78	77	74	North	N by E	North	Windy	do	Windy	
" 9	30.11	30.13	30.15	30.18	78	79	76	76	do	N N W	do	Windy	do	do	
" 10	30.20	30.18	30.19	30.24	78	79	80	78	Variable	E S E	West	Cloudy	Squally	do	
" 11	30.29	30.27	30.22	30.34	78	80	80	78	do	East	S E	Rain	do	Cloudy	
" 12	30.32	30.28	30.26	30.25	78	79	80	78	East	do	E S E	Clear	Clear	Clear	
" 13	30.26	30.16	30.18	30.19	78	80	79	77	Calm	South	N E	Gloomy	Rain	Windy	
" 14	30.26	30.26	30.26	30.26	72	73	74	72	N N E	N E by N	do	Windy	Windy	Cloudy	
" 15	30.33	30.31	30.30	30.29	73	74	73	72	N E	N N E	Variable	Clear	Fine	Cloudy	
" 16	30.28	30.27	30.26	30.28	71	73	73	72	N W	Variable	S W	Clear	do	Cloudy	
" 17	30.27	30.25	30.20	30.18	74	76	76	73	South	S by W	S S W	Windy	Cloudy	Windy	
" 18	30.17	30.23	30.25	30.34	72	73	73	72	N W by W	N W	N N W	Windy	do	Gale	
" 19	30.55	30.50	30.49	30.48	69	70	71	69	North	do	N N W	Windy	Fine	Fine	
" 20	30.49	30.37	30.34	30.32	68	70	71	70	S S W	S W	S S W	Cloudy	Dull	Cloudy	
" 21	30.20	30.18	30.18	30.20	70	72	73	72	do	S W by S	South	Cloudy	Fine	Cloudy	
" 22	30.16	30.15	30.20	30.26	74	74	73	70	South	N W	North	Cloudy	Clear	Clear	
" 23	30.36	30.37	30.41	30.46	70	72	72	70	North	do	do	Cloudy	Fine	Clear	
" 24	30.47	30.51	30.54	30.54	70	72	72	69	N E	E N E	East	Fine	Cloudy	Cloudy	
" 25	30.56	30.50	30.45	30.40	71	74	73	70	S E	East	do	Cloudy	do	do	
" 26	30.35	30.31	30.44	30.50	70	72	72	69	West	N N W	N N W	Cloudy	Squally	Clear	
" 27	30.52	30.52	30.49	30.52	69	71	70	69	Variable	N E by N	Calm	Cloudy	Clear	Rain	At sea
" 28	30.57	30.53	30.56	30.59	69	70	70	68	South	S S E	S S E	Fine	Dull	Fine	Wei-haiwei
" 29	30.59	30.52	30.53	30.54	71	74	73	70	do	do	S W by S	Cloudy	Clear	Clear	

Oct.	1	30 47	30 44	30 42	30 46	71	73	71	69	Caln	W by N	N W	Fine	Clear	Windy	At sea
"	2	30 54	30 56	30 54	30 50	68	71	72	70	N E	N N E	Calm	Fine	Clear	Windy	At sea
"	3	30 49	30 47	30 49	30 50	68	71	70	69	S W	S W	South	Fine	Windy	Cloudy	Chefoo
"	4	30 52	30 47	30 50	30 50	71	76	74	70	Caln	South	S by W	Hazy	Fine	Windy	do
"	5	30 52	30 56	30 56	30 62	71	74	72	70	do	North	N by E	Windy	Fine	do	do
"	6	30 74	30 70	30 66	30 64	64	65	63	61	N N E	do	North	Cloudy	do	Cloudy	do
"	7	30 66	30 68	30 68	30 66	62	66	64	63	N E	East	Variable	Cloudy	do	Fine	do
"	8	30 64	30 60	30 58	30 58	62	66	63	60	South	South	S by E	Squally	do	do	do
"	9	30 52	30 48	30 44	30 44	64	71	76	70	Caln	South	South	Rain	do	Gale	do
"	10	30 30	30 28	30 22	30 44	67	69	69	67	S W	North	South	Moderating	Fine	Cloudy	At sea
"	11	30 60	30 55	30 54	30 50	60	63	62	61	N E	East	South	Dull	Clear	Fine	Wei-hai
"	12	30 32	30 32	30 29	30 30	61	70	70	69	S S W	S S W	do	Dull	Fine	Clear	do
"	13	30 36	30 38	30 43	30 52	68	72	72	70	West	W N W	South	Dull	Fine	Clear	do
"	14	30 53	30 54	30 50	30 50	69	73	72	70	Caln	E S E	do	Dull	Clear	Cloudy	do
"	15	30 48	30 47	30 44	30 44	69	72	72	70	S S W	W S W	do	Dull	Clear	Cloudy	do
"	16	30 46	30 46	30 44	30 44	70	73	73	69	S W	S W	S W	Fine	Rain	Cloudy	do
"	17	30 44	30 45	30 44	30 54	68	68	67	66	Caln	N N E	N N E	Dull	Windy	Cloudy	do
"	18	30 39	30 56	30 54	30 54	62	67	66	62	N E by E	N N E	North	Windy	Dull	Fine	do
"	19	30 52	30 48	30 50	30 50	64	66	64	62	N E	do	Variable	Clear	Cloudy	Clear	do
"	20	30 54	30 54	30 60	30 64	63	66	63	62	N W	North	Calm	Clear	Cloudy	Clear	do
"	21	30 62	30 59	30 56	30 54	63	67	64	62	Variable	East	S by W	W. Rain	Windy	Windy	At sea
"	22	30 49	30 52	30 54	30 56	64	65	60	56	S S E	N by E	N by W	Windy	Fine	Clear	Chefoo
"	23	30 69	30 55	30 46	30 48	55	58	57	56	N N W	N W	West	Windy	Fine	do	do
"	24	30 56	30 30	30 25	30 29	56	66	64	60	S W	W by S	W S W	Fine	Clear	do	At sea
"	25	30 19	30 17	30 19	30 20	64	66	65	60	S by W	West	do	Fine	Clear	do	Wei-hai
"	26	30 42	30 48	30 53	30 58	61	62	60	56	North	N W by N	N W	Windy	Clear	Clear	do
"	27	30 38	30 25	30 26	30 28	54	62	58	58	S by W	S S W	W by N	Fine	Fine	Gale	do
"	28	30 16	30 10	30 30	30 38	63	66	64	56	S W	West	N N E	Fine	do	Clear	do
"	29	30 66	30 30	30 30	30 32	56	58	57	56	N E	North	Variable	do	Clear	Cloudy	At sea
"	30	30 62	30 56	30 57	30 54	58	60	60	58	South	South	South	Cloudy	Rain	Cloudy	Chefoo
"	31	30 47	30 46	30 50	30 54	60	62	60	58	Variable	N E	E N E	Cloudy	Rain	Cloudy	do

DATE	BAROMETER				THERMOMETER				WINDS			WEATHER			
	8	12	4	8	8	12	4	8	Morning	Noon	Evening	A.M.	Noon	P.M.	
Nov. 1	30.69	30.70	30.68	30.65	54°	57°	54°	54°	NNE	NNE	NE	Fine	Windy	Clear	
" 2	30.55	30.51	30.44	30.40	54	55	54	53	do	N by W	NNW	Cloudy	Fine	Clear	
" 3	30.37	30.38	30.40	30.40	54	55	54	54	NW	West	West	Cloudy	Clear	Fine	
" 4	30.42	30.37	30.40	30.42	53	57	56	54	WSW	WNW	WNW	Fine	do	Fine	
" 5	30.41	30.37	30.32	30.35	53	58	57	54	SW	SW by S	do	Fine	Fine	Fine	
" 6	30.60	30.66	30.56	30.57	50	52	53	51	NE	WNW	West	Windy	Windy	Fine	
" 7	30.59	30.62	30.60	30.62	51	53	52	51	NW	NW	do	do	do	Windy	
" 8	30.50	30.49	30.48	30.53	48	51	50	48	WSW	NW by W	NNW	do	do	do	
" 9	30.57	30.60	30.62	30.67	49	50	48	47	NW	NW by W	WSW	Fine	Clear	Fine	
" 10	30.60	30.62	30.65	30.65	46	49	48	48	West	WNW	WSW	do	do	Cloudy	
" 11	30.62	30.60	30.59	30.60	46	49	49	47	WSW	SW	South	do	Clear	Rain	
" 12	30.60	30.58	30.58	30.57	50	58	55	50	SW	Variable	WSW	Dull	Dull	Cloudy	
" 13	30.54	30.50	30.50	30.48	50	56	54	51	do	do	SSW	Rain	Windy	Rain	
" 14	30.36	30.36	30.39	30.40	49	55	53	50	NE	North	NW	Fine	Fine	Fine	
" 15	30.32	30.30	30.28	30.34	49	56	57	51	SW	South	SW	do	do	do	
" 16	30.57	30.36	30.38	30.40	50	59	58	51	Variable	Variable	SSW	Hazy	Fine	do	
" 17	30.40	30.37	30.38	30.46	51	63	64	50	SW	do	S by W	Hazy	Hazy	Hazy	
" 18	30.43	30.37	30.38	30.44	60	64	63	52	SSW	S by W	SSW	Windy	Windy	Clear	
" 19	30.44	30.45	30.53	30.55	54	58	54	50	NNW	N by E	North	Thick	Fine	Clear	
" 20	30.62	30.56	30.55	30.58	46	50	50	48	N by W	North	Variable	Cloudy	Cloudy	Cloudy	
" 21	30.55	30.50	30.48	30.51	50	59	48	47	Variable	SW	SW	Clear	Cloudy	Cloudy	
" 22	30.56	30.58	30.59	30.60	58	60	57	52	N by W	NNW	North	Windy	Windy	Windy	
" 23	30.58	30.60	30.57	30.60	58	60	58	54	do	North	SW	Cloudy	Cloudy	Rain	
" 24	30.58	30.60	30.60	30.60	56	58	57	54	NW by N	NNW	North	Windy	Windy	Windy	
" 25	30.73	30.68	30.72	30.74	56	58	56	53	NNE	NNE	NE	do	do	do	

At sea
Off Shanghai prom.
An'ed Lat. 36° 56'
At sea " 36 20
do " 35 30
do " 33 43
do " 31 35
Anc'd Rugged
Yangtze kiang.

The foregoing Register was kept on board of a boat, in harbour and at sea, by Mr. J. H. Hendry, chief officer of the *Swallow*.

ARTICLE X.

RECORD OF OCCURRENCES.

By the Editorial Committee, August 13th, 1860.

CHINA and Japan, whether destined soon to experience any salutary reforms or not, are now fairly in a transition state. A revolutionary spirit is developing itself and becoming continually more and more manifest, by overt acts, in both empires. Insurrections with the demolition of cities and the slaughter of men are, in China, the unmistakeable marks of the fatally disordered condition of the body-politic. In Japan the symptoms of disorder are, it may be, less palpable and strong; yet there, too, similar tendencies plainly indicate the decay of old foundations, and that the whole empire may ere long be subjected to violent convulsions.

In order to understand the true bearings of this transition state, in China, we must keep in mind some of its antecedents. The great revolutionary movement, now producing so much excitement in this vicinity, exhibits nothing remarkably strange, except in its *religious* phase. The annals of China, during a period of more than forty centuries, show us that 173 years has been about the average duration of its successive dynasties, and that a fraction less than twenty years has been the average reign of its emperors. Considered in this point of view, the decadence of the Manchu family becomes an ordinary matter, and rebellions mere normal events, which need not excite wonder or amazement. This family claims for itself a celestial origin; authentic history, however, shows us that its ancestors were earthborn, first appearing at no very remote period among the lesser tribes of Eastern Asia, not far from Corea, on the banks of the Amour. In 1644 one of their chieftains was placed on the throne of China; and the present incumbent is the seventh of this line of emperors, who, during the lapse of 216 years, have held the imperial sceptre.

The accession of the Manchus was easily achieved, and their empire was gradually extended, till it reached the zenith of its

glory—in the palmy days of Kienlung,—about a century ago; since then the marks of decay have been such as to foreshow the coming of even greater evils than those which now afflict the nation. Bad as the present is, a still worse condition of the whole empire seems inevitable.

The insurrectionary movement, to which we have alluded, and which now threatens the extinction of the old government, broke out in the extreme south of the empire, simultaneously with or only a short time before the demise of his late Majesty, "Reason's Glory;" and Hienfung was proclaimed his successor in Peking, at or about the same time that Hung Siutsuen was declared "Heavenly King" in Kwangsi. Thus "two suns" arose to claim supremacy in the Middle Kingdom. From that date to the present time, the conflicts between the Imperial and the Insurgent troops have been almost uninterrupted, and usually attended with great destruction of life and property. According to the statements given in the Peking Gazettes, myriads on myriads of the rebels have been exterminated; while on the other side, there is good reason to believe the disasters have been not less, but rather the reverse, as recent occurrences near us demonstrate.

The TAI PING KWOW, or "Kingdom of Great Peace," of which Hung Siutsuen is the head, came into existence some time in 1851, and immediately assumed a complete organization. It at once discarded the ancient Calendar and Classics of the Chinese; and, in their stead, accepted the Christian Scriptures of the Old and New Testaments and adopted a reformed Calendar.

The war, which the emperor's officers and army had already for a season been waging against this body of Insurgents, was now, on their part, entered upon with an energy and success seldom if ever before witnessed in China. It was, too, so far as the Manchu government and all idols were concerned, a war of extermination. Early in 1853, Nanking became the capital of this new Power and the centre of its operations. To that city, not long afterwards, the ships of England, France, and the United States, successively repaired, having on board diplomatic agents. Lord Elgin's visit to the interior provinces, more than a year and a half ago, brought down the latest authentic information, regarding the Insurgents, that had reached us, prior to their recent movements,—the details of which, so far as they have come to our knowledge, we have now to place on our Record.

During the whole of 1859, the reports touching the Insurgents were vague and unsatisfactory; accordingly, in our last Record, dated last December, we had no new facts to lay before our readers. The belief was then very general, among the Chinese and foreigners, that the Tai Ping Kwoh must soon break up and disappear. Shih Tahkai, supposed to be the only surviving subordinate king, was reported to have broken faith with the Heavenly king, withdrawn from Kiangsi, and was believed to be directing his course through the lake provinces towards the "Four Rivers;" while Hung Siutsuen and his adherents, almost starved, and their resources nearly exhausted, were sorely beleaguered in Nanking, their last stronghold on this side of the Great River. On the left or opposite bank, higher up the river, they also held the capital of Nganhwui and some subordinate cities. Such seems to have been the condition of the Insurgents at the close of the year 1859.

Early this year they or some local bands, or both together, suddenly appeared in considerable force close upon the old channel of the Yellow River, near the Great Canal. Several towns and cities were sacked; and for a season, in February and March, the highway, between Shanghai and Peking, was rendered impassable. Not long after this, they suddenly appeared, in the opposite direction, before Hangchau, the capital of Chehkiang. The city was taken by storm; and after great slaughter and much pillage, the insurgents withdrew from that province as suddenly as they had entered it. The object of this strategical movement will appear in the sequel.

On or about the 5th of May the emperor's troops, that for so many years had been strongly entrenched before Nanking, were suddenly assailed by hosts of the Insurgents; and, quickly overwhelmed, they fled in disorder, leaving behind them nearly all their munitions of war, with some treasure. Falling back thus precipitately, some of them sought refuge in the city of Chin-kiang, while others retreated to Changchau, the residence of the governor-general, Ho Kweitsing.

Two weeks later, more or less, the defeated troops, with many of their officers having reached Suchau, its rich suburbs were set on fire. This now seems to have been done, not, as was at first reported in Shanghai, to afford the emperor's troops better opportunity to defend that city, but solely that they might more

readily load themselves with the treasures of the people. The plunder was great, and the destruction of property immense. As the flames spread, so did the panic, and in all directions. The civil and military authorities were already in bloody collision. Many of the emperor's soldiers and some of the officers were decapitated as deserters or traitors. To crown the climax, the confusion was increased by the presence of large bands of the long-haired men, who entered the city and planted their banners on its walls. The reign of terror had now begun. Thousands of the people were destroyed,—some being cut down by the emperor's soldiers and officers; others by the victorious rebels; and not a few fell by their own hands. An eyewitness declares the scenes he beheld, on that occasion, as horrible beyond all description. Among the officers, there killed, were P'an Wankwoh, son of P'an, the senior minister of state, and Hochun, the emperor's high commissioner. The latter committed suicide.

As the alarm spread rapidly throughout all the surrounding regions of this wide and populous province, similar scenes of fire and blood were enacted in many of its cities and towns and hamlets. At Changchau, where the people were resolved to defend themselves and begged the governor-general to remain for that purpose with them, he ordered his own guards to fire on them, which was done with fatal effect. Having in this manner abandoned his capital, he reached this city early in June; and soon after dispatched his family on board a foreign steamer to one of the southern ports. Scores of "deserters," from the imperial army, who came with or followed Ho to Shanghai, were here decapitated; and in a few days more than two thirds of the native inhabitants of this city had fled from within its walls. Proclamations in Chinese, issued by the allied authorities, English and French, were insufficient, at the moment, to allay the fears or to stop the exodus of the terrified multitudes. Men, women, and children were seen, early and late, hurrying off into the country, leaving their homes untenanted and carrying along with them such light articles of domestic use as came first in their way.

So great has been the panic and such the disorders, prevailing far and wide and immediately around us, among the Chinese of all classes, that it is at present quite impossible to ascertain more than a few of the principal acts in this strange drama. In in-

stances not a few, the reports have been so vague or conflicting that we cannot ascertain, with any degree of certainty, what are the real facts; we do not know, in many important things, what has been done nor how affairs now stand, between the belligerent parties. Our Record, therefore, must be brief in many of its details and accepted with due caution.

On some important points, where much doubt existed in regard to the character and policy of the Insurgents, satisfactory information has been supplied by recent visitors to Suchau, now the temporary headquarters of two of their kings, Kan wang and Chung wang. The Revd. Messrs. Crawford, Hartwell, and Holmes, American missionaries, left Shanghai in a small boat, on the 19th of June; the next day they passed the advanced lines of the Imperialists, about thirty miles north from this city; thence went on to Kwanshan and Suchau, in each of which cities, remaining a night and a day, they had free communication with the Insurgent leaders and with the common people. They returned to Shanghai on the 27th. The Rev. Messrs. Edkins, John, Hall, and Macgowan, English missionaries, left Shanghai on the 30th of June, and returned on the following Friday, having been absent six days. From a second visit, accompanied by the Rev. Messrs. Burdon, Innocent and Rau, Messrs. Edkins and John returned on the 6th of July, having been absent only five days, two of which they passed in company with Kan wang. In addition to the observations made by these and other visitors, we have also several proclamations and pamphlets recently put forth by the Insurgent kings, now eleven in number.

The late eruption of the Insurgents from Nanking, as their own testimony comes to us by the first party of visitors, was in this manner. Closely besieged, there were only two outlets through which they could communicate with those beyond their lines in the immediate vicinity of the city, and one of these had recently been closed up. In this extremity, as a dernier resort, they planned and executed the attack on Hangchau. As soon as their pursuers had fairly reached that city, the Insurgents abandoned it, moved directly back, joined those they had left in Nanking, and then with their united strength swept away all the encampments of their foes, leaving thousands of them dead on the battle-field or by the way-sides, while "tens of thousands," as the Insurgents aver, came over to their own ranks.

In the midst of this discomfiture of the emperor's troops, their great hero, the ex-rebel Chang Kwoliang, disappeared, and is no doubt dead. As a general, he was not unlike his old friend and fellow-soldier Yang Siutsing, the late eastern king. Both were southern men, generous, brave, proud, and sensual; both were traitors to their Imperial master, and alike proved themselves disloyal to the Insurgent chief; and both died ignominiously, Yang by the direct order of the Heavenly king,* and Chang either in the onslaught, as above described, or, as some say, by poison administered with his own hands. In this easy deliverance from a long siege, and in this signal destruction of their enemies, as in a great many similar instances experienced on former occasions, the Insurgent leaders see, or believe they see, the interposition of the Almighty in their behalf.

The governor of this province, Sü Yujin, resident in Suchau as his capital, at the time of its fall, and said to have committed suicide there with Hochun, was reported by the Insurgents, to the second party of visitors, to have fled with some of the Imperial soldiers; while to the former party it was stated that, having been taken prisoner, he begged the Insurgents to kill him. This they declined to do, saying that they had service for him to perform. His wife and all his kindred, he urged, would certainly be slain by the emperor's command, if he entered their service. To avoid this sad result they proposed to go with him to Huchau, not very far distant, and bring off both his family and property. This was accordingly done; and then, duly installed as a leader in the Insurgent army, Sü was despatched with a body of troops, composed principally of deserters from the emperor's own army, to renew the attack on the capital of Cheh-kiang.

Whatever may be the facts, in regard to the governor of this province, there is no doubt that Hangchau was occupied by a band of Insurgents for a short time last spring. Having sprung a mine and breached the walls, in their usual manner, they entered the city on the 19th of March and abandoned it on the 24th, during which interval of only one week, it is declared that between fifty and seventy thousand of its inhabitants perished; and

* It will be remembered that the Eastern King, who had become most corrupt and reprobate, was, with his whole family, and some twenty thousand and odd of his adherents, cut off in a single night, just as they were about to exterminate Hung Siutsuen and his court. This was in the autumn of 1856. See the *North-China Herald*, January 2nd, 1857.

it is believed that a large portion of these committed suicide. The same is said to have been the case also, in almost all the large cities which have been carried by storm, such as Nanking, Chinkiang, Suchau, and many others, that have fallen during the last ten years. The amount of self-destruction and the loss of life in various other ways are almost incredible. Vast numbers of the dead are thrown into the canals and pools, while heaps of the unburied fill the lanes and byways, so that the stench far and near in and around the captured towns and villages is well-nigh insufferable. Most of the recent visitors to Suchau can testify to the truth of this statement. None but those who have been eye-witnesses of sacked cities, in China, can adequately conceive of these melancholy scenes,—streets deserted, houses pillaged or burnt, corpses half-decayed, while perhaps here and there is to be seen some solitary domestic animal lingering, or a bird-cage hanging up in silence its poor-inmates having died of starvation.

At the present moment we have no means of ascertaining the numerical strength of the Insurgent armies, or the extent of territory and the amount of population subject to their rule. On these three several points even their leaders are not, and cannot be very minutely informed,—these armies being often detached from each other and widely separated, occupying various places throughout not less, probably, than the one half of the eighteen provinces. The chiefs, at Suchau, again and again averred, when interrogated by their recent visitors, that Shih Tahkai, as had been supposed by foreigners, has entered the great western province, Sz'chuen, having passed last year from Kiangsi through the lake provinces, carrying all before him wherever he turned his line of march. There has been, they say, no breach of faith or alienation between him and Hung Siutsiuen. He now holds his court in Chingtu, the capital of that province; has brought into alliance with the Insurgent army under his command many thousands of the independent tribes and other mountaineers, the *Miautsze*, of Kweichau and Yunnan, the subjugation of which provinces he is now meditating; and has, quite recently, sent down to Nanking a thousand men, with the bearers of congratulatory despatches to his superiors Hung Siutsiuen and Hung-jin, occasioned by the advent and accession of the latter, who now virtually holds the second place in the kingdom.

These things being thus, it may be pretty safely inferred that

the two main divisions of the Insurgent forces are stationed, one in the far west, having its headquarters in the capital of Sz'chuen, and the other here in Kiangsu, with its headquarters in the cities of Nanking and Suchau; while smaller divisions are to be found, north of the Great River, in Nganwhui and Honan, and, in the opposite direction, on the frontiers of Chehkiang and Fuhkien, as well as in Kiangsi, Hupeh, Hunan, and Kwangsi—the original seat and hotbed of the “Great Rebellion.”

In regard to the organization, equipment, discipline, &c. of these several divisions, recent movements have added very little to our former limited stock of information; and it is not easy to say whether their success in Sz'chuen and in this province should be attributed, under an overruling Providence, to any improvement or increased energy on their part; or, on the other hand, to the gradual decay of the Imperial administration in all these provinces. The testimony is almost uniform that bad as the Insurgent rule is, that of the emperor's officers is much worse; and it is this mal-administration that drove his majesty's subjects to insurrection in the first instance, and that now leaves, over-run and trodden down by intestine war, what were ten years ago the fairest portions of his empire. Moreover, in cases not a few nor unimportant, it is not the Insurgent army against the Imperial that works all the mischief, but no small share of it is caused and perpetrated by local bands or fragments of the emperor's army that are in collision with masses of the people, compelled to rise and arm and fight for their “inalienable rights,” life and property.

The following proclamation is one of those recently received from Suchau, and was probably issued early this year.

WE, OF THE GREAT PEACEFUL HEAVENLY KINGDOM

TRULY HEAVEN-ORDAINED—

于王洪 Kan wang HUNG, appointed by royal decree Principal Director-general of the Literary Chancery and of the new dynasty, a sincere and faithful major-general commanding the palace-guards;

英王陳 Ying wang CHIN, appointed by royal decree Secondary Director-general of the Literary Chancery and a faithful and brave [commander] of the body-guards and of the royal metropolitan troops;

忠王李 Chung wang LI, a faithful and just [commander] of the metropolitan troops and of the nocturnal guards;

贊王蒙 Tsan wang MUNG, appointed by royal decree also a Secondary Director-general of the Literary Chancelorship, a faithful and upright [commander] of the royal metropolitan troops and of the court-guards;

侍王李 Shi wang LI, a true and upright [commander] of the metropolitan troops and the city guards;

輔王楊 Fu wang YANG, a faithful and upright [commander] of the metropolitan troops and of the city guards; and

章王林 Chang wang LIN, a faithful and respectful [commander] of the metropolitan troops and of the palace guards;—

Make this proclamation, faithfully exhorting you to cast off darkness and come into the light, altogether abandoning your stupid ways, so that each and all of you may secure eternal felicity.

This empire is the empire of the Chinese, and not the empire of the Tartars; its throne is the throne of the Chinese, and not the throne of the Tartars; and its sons and daughters with its rich products are all Chinese, and do not belong to the Tartars. But on the downfall of the Ming dynasty, they made it an occasion to enter China by fraud and steal away the goodly insignia of empire. And never since that day have our officers and soldiers and people had patriotism and prowess sufficient to expel them from our borders, and sweep clean away these debauched and frowzy monsters; on the contrary, with bowed heads and minds dejected, they have become their ministers and their servants. For more than two centuries, these robbers by their misrule have disturbed the Middle Kingdom; and under their iron sway, by pains and penalties, have always and everywhere held in check both our soldiers and people. All have been thus willingly submissive to their sway, so that not one brave man, one true hero, can be excepted. Alas, to speak of these things is truly enough to wound the heart and to excite against them the strongest indignation.

Soldiers and people! In regard to the times past, as you were forced by these Tartars to be thus submissive, it would be hard to charge you with deep criminality. Then, moreover, our True Holy Sovereign, who was then on earth, there was no one to whom you could turn and on whom you could depend. There was no escape for you, for you could not free yourselves from these monsters nor undertake a revolution. You were like those in thick darkness who cannot see the sun in the heavens. Gropping in that darkness, therefore, while waiting for the light of heaven, it were hardly possible to avoid the wrong way.

Now, however, the case is altered; the three times seventy annual revolutions of these monsters have announced their end, and the True Man of happy destiny has made his advent; and reverently do we contemplate the heavenly grace of the Heavenly Father and the Heavenly Elder Brother, so largely displayed in their personally commanding the True Holy Lord, the Heavenly Lord, to come down and rule the world with royal authority, transforming the rude barbarian by the highly refined, destroying the depraved, and preserving the upright, resolved to sweep away the Tartar dust, and to define and settle the boundaries of our domains. This, therefore, is truly a most happy conjuncture, such as seldom occurred in olden times, when you ought to acquire imperishable honors. At once, therefore, let all the wise and heroic, with upward gaze, approach the Sun, and yield themselves up to his glorious influences, evincing a profound knowledge of the principles which characterize the rebellious and the loyal, and thus acquire the singular merit of adoring Heaven and honoring the king.

Although you may even now be acting as Tartar officers and Tartar soldiers, you are all really the children of the Heavenly Father; and yet having been once made subservient to them, though unintentionally, you now cannot but be

obedient to their beck. In thus acting as their abettors, however, you are injuring yourselves and warring against Heaven. Such conduct, while it is most detestable, may be extenuated; and the True Lord having now appeared, clear as the sun, you ought to cast off darkness and come into the light, return at once to the right way, cleanse yourselves from your former filthy manners and act as the children of Paradise.

Moreover, our Heavenly King, so exalted are his virtues and so vast his favors, can rescue and save all the people of the empire; and those who will truly adore Heaven, recognise him as their sovereign, and with true hearts give in their adhesion, shall without exception be regarded with equal benevolence and treated with extraordinary favor.

We, the major-general and his associates, fearing that you, deceived by the fraudulent Manchus, may still inconsiderately adhere to your stupid ways, will not grudge the labor of rescuing you by our own hands from your sinking condition, endeavoring to the utmost to arouse you as those that are deaf. With this purpose, therefore, we do now most earnestly and clearly admonish you, in regard to the essential principles of loyalty and rebellion and the real consequences of good and evil conduct.

Our noble and generous people have been hoodwinked and deceived by these Tartar monsters, in the first place, in regard to offices of trust. Consider now how these have been distributed.

The most desirable and important posts are all filled by the Manchus; while such only as are onerous, vexatious, mean, and difficult are assigned to the Chinese. They are, for example, saddled with deficient treasuries and with old and involved law cases, so that as soon as they move they at once become most grievously embarrassed; and thus, while there is the name of office, their condition is nothing better than being in the stocks or the pillory.

In like manner, when there are to be any promotions, transfers, exchanges or new appointments, the candidates for the same will all be recommended and secured by the Manchus themselves, so that all honorable and desirable stations are engrossed by them. But as it regards the Chinese, if they be not rejected by the monster chief [i. e. H. I. M.], they are sure to be objected to and set aside by his Boards; so that, however large their merits or high their renown, no place can be obtained by them except through bribery.

In regard to the army—the Manchus receive double rations, while the Chinese are allowed only half pay. Wherever a battle is to be fought, the Chinese are placed in the van, the Manchus in the rear. Hence in every charge made on them by our heavenly troops, the Chinese soldiers are instantly cut up and ground to powder; and wherever the earth is found besmeared with brains and blood, or covered with piles of bones and carcasses, the greater part are always those of the Chinese, because the instant the front ranks give way, the Manchu soldiers all scamper off like troops of rats. In the forefront, where the deadly missiles are hurled thickest, there the Chinese are stationed, as coverts [to protect the Manchus]. Hence the two common sayings, "Militiamen are death-shields;" and, "Chinese soldiers are death-shade substitutes."

With respect to rewards and bounties,—these too are all claimed for and by the Manchus, while to our noble soldiers none are ever granted.

You, Chinese soldiers, in forsaking fathers and mothers, leaving your homesteads, encountering the frosts of winter and the heat of summer, exposing your lives in the field, have been moved only by the desire to win for yourselves some inconsiderable honors. These however are not granted to Tartars in their army, according to any certain scale. They have indeed the white, blue, and red knobs, all utterly worthless; and as military honors are in common parlance called, "Great Peace dissolved,"—because granted only on emergencies, and when such are passed [i. e. when our Great Peaceful Kingdom is dissolved], then they are to be withdrawn. Of what value to you, if indeed you may survive a hundred battles, can be the possession of such paltry baubles?

Despatched, by the most pressing orders, from remote regions, travelling by land and water over many mountains and rivers, sleeping by night in the open

air and feeding on the wind, you are thus called to endure all possible hardships ; and ere an opportunity is afforded you to secure any honors, you fall by the edge of the sword in battle. This truly is most lamentable.

Moreover, not a few of you, both in the regular army and in the militia, have sought your present places in order to escape the punishments to which you became liable on account of inadvertent acts committed in your native villages ; and you must needs know that you are there detested as venomous serpents, and also that the Tartars have many methods by which to annoy and harass you. If then you should chance to return to your native villages many of the inhabitants would seek to harm you, and if they did not bury you alive, they would cast you living into an abyss. Many instances of this sort were seen by the major-general when on his way from Canton in the eight provinces through which he travelled.

Some of you also, though unable to gain the highest honors, may still have been considerably advanced in rank, and yet never able to return home with these lesser honors. Hence, as the old proverb says, "The rich and honorable, who can never revisit their homes, are like those walking abroad in the dark night clothed in rich attire." And so it is with you ; while you remain abroad, in the army, death not life is your portion ; and if you chance to return home, still life becomes death to you. There is for you no place of repose except in death.

To ponder on these things in the midnight hour is grievous and painful in the extreme. All these, however, are the wrongs and the miseries to which you have been subjected by the Tartars. And now, having once reached this pass, what have you of good in possession or in prospect ? Can you, will you, any longer quietly and patiently endure these things ? And yet all these are but a small part of what you, soldiers and militiamen, have had to endure.

As regards the cruelties and deadly injuries that have been inflicted on our people,—why, were all the bamboos on the southern hills converted into pencils, they would not suffice to describe the sins of these monsters, nor would all the waves of the eastern ocean be enough to wash away their wicked stains.

Such now being the evils that have been inflicted on the Chinese, by these Tartars, we, all the people of the Middle Kingdom, are their eternal enemies ; and ought, therefore, moved with righteous indignation, to exterminate the vile barbarians, reclaim our ancient domains, and not leave behind even a remnant of the guilty race. This is required of us by the just distinctions of good and evil and the perfect principles of Heavenly Reason.

Why then any longer, with shame and infamy, continue to be their slaves and menials ? Why oppose our Heavenly Dynasty ? Why not at once give in your adhesion ? To act as you now do, is to forsake the broad highway, and, abandoning your homes, to become outcasts. Alas ! how detestable, and yet how pitiful !

You yourselves, moreover, all know full well the exceeding greatness of our Heavenly Dynasty, affectionately cherishing all alike, making no distinction between the brethren whether new or old, all being treated as one body. Those whose merits are large, will be largely rewarded ; and those whose merits are small, will obtain smaller rewards.

In the superior classes of society there will be the kings, the dukes, civil and military officers, &c., &c. ; in the inferior classes, there will be the soldiers, scholars, females and children,—all to be provided with food and clothing,—that they may dwell in peace and quiet.

Those who have families shall live together in happiness ; those who have not, may wed as they find it agreeable ; and those who are in the army, shall not be without the delights of domestic life. Even though you be in remote parts of the empire, and there fall on the battle-field, the separation from the living is only that between those on heaven and those on earth.

And yet still more, all those who shall have assisted the True Sovereign shall be placed in honorable stations, and their glory long enjoyed in their families, and in future ages on scrolls and tablets be perpetuated for centuries. What honors can be more lasting than these ?

Besides all this, universal peace throughout the empire is in full prospect, and in four or five years, you will be honored as the ministers of the new dynasty; lands will then be appointed to you, and in robes of honor you will be able to revisit your homes. Fail not therefore, in view of such honors and emoluments, to quit yourselves like men. Ponder well the course you take, and quickly revolve and settle your plan of action!

The grace and favor of our Heavenly Court are very great; the past shall not be investigated. If truly you can repent and come back, your abilities and capacities for the public service shall be placed on record. Do not, because of your having been in the service of the Tartars as officers and soldiers, be so filled with suspicion and fear that you cannot advance to our summons. Rather change at once your course, quickly abandon your bad ways, so that you may secure eternal happiness. This is our most earnest desire.

If still, as the fatal hour approaches, you cannot awake, but willingly continue to be the slaves of the Tartar monsters, soon and suddenly our troops will make their victorious onset. Then there will be no escape from destruction; even repentance for you will be too late!

We, the major-general and his associates, being deeply concerned for our common country, now so grievously afflicted by these monsters, do most earnestly press on you these our injunctions. Though you heed not our words, we cannot but be thus earnest. What shall be your gain, and what your loss, we beg you to consider well for yourselves; and whom you will forsake and whom you will follow, it now remains with you to decide.

Hasten to improve this timely warning. Delay not till destruction overtakes you. Then happily our intense desire to awake you, by these reiterated injunctions, will not have been in vain.

To you all, the multitudes of the people, this proclamation is now made. Let all listen attentively and understand!

This proclamation is probably the fairest index that can, at this moment, be given of the general policy and designs of the Insurgent kings. Several similar papers, during the last ten years, have been put forth by them at the various stages of their progress. Some of these were early translated, and published in the public journals of the day, here and at Hongkong.

On comparing those earlier proclamations with this one, considerable modifications would seem to have been made, introduced no doubt in part, if not mainly, by Kan wang, or King Kan. To him, therefore, the hopes of the Insurgent body, and the eyes of all Christendom as well, are naturally enough now directed. Fortunately his character and training are not wholly unknown to us.

He and the chief are relatives, descendents in the thirtieth generation of an illustrious family of the Sung dynasty. Some centuries back this family or clan, called HUNG, removed from one of the northern provinces to that of Canton, where ten years ago it numbered about twenty thousand individuals. Like his relative, Hung Jin was a student from his youth; and in 1843, in company with one afterwards known as the Southern king, he was baptized by Hung Siutsiuen. These three men, with a few others, continued to labor together as zealous and humble

Christians, till persecution was raised against them, when some of their number were imprisoned and others were cruelly put to death, by the officers of the imperial government.

Though so numerous in Canton, the members of this clan, like many others there, were called "Strangers," in the colloquial dialect, *Hak-kas*. Between some of these strangers on the one side, and the old indigenous families on the other, civil war broke out in 1850, no very unusual occurrence in many parts of China. The latter, being worsted in their bloody conflict, sought refuge among these Christians, then quite numerous, and, among their immediate neighbors, enjoying a high reputation as good and peaceful people. Many outlaws also gathered around them for protection. For these reasons it was that the Christian Strangers became so obnoxious to the local authorities.

Hung Siutsiuen had anticipated this issue; and, having failed to reach Kíying, then in Canton, and to secure from him the benefit of the "Toleration Act," he began immediately to prepare for the gathering storm, and collected such members as he could of his family. This was at a place known as *Gold-field*, among the mountains of Kwangsi; and there the storm of hot persecution burst upon them.

Meanwhile his relative, Hung Jin, now Kan wang, continued the quiet prosecution of his labors as a village schoolmaster. But as the insurrection spread, he likewise, as one of the proscribed, was compelled to seek safety by flight. Once he was made prisoner; and, in a state of great fatigue and despair, was about to destroy himself, when one of his companions interposed. In that forlorn condition, he prayed to his Heavenly Father that his life might be spared. After various wanderings and many narrow escapes, he reached Hongkong, where he was befriended by Mr. Hamburg and others, chiefly German and English missionaries. This was in April 1852.

During a period of some five years, from that date, he remained at Hongkong, Canton, and Shanghai, in connection with foreigners, and by his diligent study acquired no small amount of knowledge,—as his new book sufficiently evinces. All this time he sought in vain for some convenient way to reach his friends in Nanking. He had disappeared for some months, when on the ascent of Lord Elgin's expedition towards Hankau, near the end of 1858, he came on board one of the English ships and delivered

a packet of letters for his family in Hongkong; and then again disappeared. Nothing more was heard of him, by his foreign friends, till the second party of missionaries came within the lines of the Insurgents on the 1st of June last. It was then ascertained that he was in Nanking, where he had been for more than a year, high in rank and strong in influence.

He had come to the besieged city in a time of its extremity; and, seeing how both leaders and people had degenerated, he set himself to work and drew up a series of memorials and other papers, which he laid before his superior Hung Siutsuen, and was by him at once elevated to his present high rank, as King Kan, &c., &c. A large collection of these documents, making a volume of more than eighty pages, is now in the possession of foreigners, and considerable portions of them have been translated and published in the North-China Herald and Hongkong newspaper. * * *
 * * * *The Rebels are coming* * * * *are here* * * *
are gone!!

Sept. 5th. The first part of this Article was in type, and most of what was to have filled the remaining pages was in manuscript, when suddenly, instead of vague rumors, it was announced that large bodies of men were advancing towards Shanghai, and the smoke of burning villages, far off in the southwest, was seen at the same time. This was on Thursday, Aug. 16th. Next day, instead of only one or two, several fires were seen, and some of them in the vicinity of Sü-kia wei (Zi-ka-wei), only four or five miles from this city. Early in the afternoon of Saturday rebel scouts appeared under the walls at the South Gate and skirmishing began. This skirmishing was continued all next day and on Monday, when soon after midday their advanced bands began to fall back. At intervals, however, firing was kept up until Wednesday afternoon; but before sunset next day, August 23rd, not a living rebel was to be found this side of Sü-kia wei.

Of this "affair"—tragedy, comedy, farce,—we subjoin such details, derived partly from official authorities and partly from our own observations, as the very limited space remaining for this Record will allow.

Copies of the following proclamation, issued in Chinese by the "Faithful King," Chung wang, were found placarded in the city and foreign settlement early on Tuesday morning, August 14th.

Li, the Faithful King of the Great Peaceful Kingdom, and a faithful and just commander of the metropolitan troops and nocturnal guards,—

Now again clearly and urgently reiterates his injunctions, in order that none may any longer blindly adhere to their stupidity, and so bring sorrow upon themselves.

Several years have elapsed since the Heavenly Decree was received, by us, to lead on our heroic army and destroy the cruel Manchus. In the neighboring regions, within the compass of thirty or forty miles of our Capital, (Nanking,) there may have been some ten thousands of these, who on the approach of our troops, as every one knows, at once disappeared like flakes of snow beneath boiling waters. You yourselves, I suppose, must all have heard of and seen these things, so that they need not here be recapitulated.

Recently, on the breaking up of the siege of Nanking, we advanced directly *viâ* Küyung, Tanyang, Changchau, Wuseih, and took possession of Suchau. Through a distance of one hundred and seventy miles (more or less), without the slightest effort on our part, all these regions have reverted to us. Such of you as still remain, secreted in the nooks and corners of this province, must be filled with alarm and have lost all courage. No one can be ignorant of these things.

Now already it has been determined that our troops shall move on Shanghai, directly and with dispatch; and that place, it is presumed, will be quickly and easily reduced. But as a large part of the people of Nanking and vicinity have fled, first to Suchau and thence to Shanghai—like birds frightened and finding no resting place,—therefore, reverently imitating the High Ruler's love to mankind and the true and holy Savior's regard for the living, I have not at once brought down our troops on that region. In this manner extraordinary grace and mercy have been manifested. You therefore, the inhabitants of Shanghai, ought immediately to reform, and, hastening to make true submission, return to the path of duty.

Moreover, it is only some seventy miles from Shanghai to Suchau, where I have now been for more than two months. Some of its inhabitants have already sent up to us their family registers, while others have made offerings and welcomed us along the highways. In like manner your submission should have been seen. Yet, so far from it, you on the contrary have dared to destroy my messengers, sent to you with dispatches. Truly such guilt and such wickedness no law can excuse or pardon. I repeat it,—the bearers of the dispatches were commissioned by myself.

The ancients before going into battle were accustomed to exchange civilities, and their envoys were never slain. How then it is that the people of Shanghai alone have seized and bound our messengers, and yielding to their monster authorities have even put them to death?

Our munitions of war are now in readiness; and our troops, trained and harnessed, will shortly advance. Yet even in this hour of extremity, a desire to exercise unwonted benevolence still predominates. And therefore it is that these injunctions are now reiterated, with the hope that you may all give good heed to the same. If, as soon as this proclamation appears, you can truly repent of your errors, and make known our injunctions throughout all your market-towns and villages, so that all the people shall come up to Suchau, then assuredly a way for reformation shall be opened before you.

Since the commencement of this revolution, ten years ago, at Gold-field in the south of China, no foe has been able to withstand us, and in every battle we have been victorious. What then is your puny district that it should be able to make resistance? Shanghai, however, has a good reputation for its fine products, and there must be in it wise and enterprising men, capable of discriminating between gain and loss, and of deciding on the one side whom they should forsake, and on the other whom they should follow.

Once more, therefore, have I addressed myself to you by the proclamation of these special injunctions. If you, knowing that resistance is impossible, will listen with submissive hearts to our admonitions, and quickly surrender, then on the approach of our army no danger, not the least, shall be sustained, not even a dog or a fowl shall be alarmed.

But if you obstinately refuse submission, relying on your own wisdom and your own prowess, deeming yourselves sufficiently able to make resistance, why then, you must abide the consequences. Our plans are firm as the hills, the execution of our decrees rapid as a flood of waters, so that nothing can resist or disturb them.

Immediately after this proclamation is issued, our troops will be on the march. There will be no long delay. Say not there has been no timely warning. Let each tremblingly obey and not oppose these our special injunctions.

These earnest words were not unheeded; nor was the excitement that followed restricted, in this case, to the native population, though to them *alone* the admonitions were addressed: volunteers were enrolled; barricades erected; arms of all sorts mustered; trunks packed; treasure shipped; inventories taken; and many other things done, with more than ordinary dispatch. Lightly as we may look back on the transactions of the last two weeks, now that they are passed with comparatively little damage to our own persons or property, imminent and very serious danger was apprehended, and not without reason; nor did the sense of danger much abate, till the excitement had been transferred, by shot and shell, into the ranks of the Insurgents.

Long before a translation of the Faithful King's proclamation had been made public, the destination of a large flotilla of rebel craft, supposed to have been intended to act against Sungkiang, or some place farther off, was no longer doubtful; it was seen coming direct to Shanghai. At the same time, as stated above, the smoke of burning villages indicated the advance of another body of men by land near Zi-ka-wei; while a third was reported on the march from Kiating (Cading) by way of Nantsiang. These three divisions, each numbering from five to ten thousand men, were to move simultaneously to the attack,—one on the north side of the city, one on the west, and one (the flotilla) on the south and east; and, to cut off all retreat or possibility of escape, scouts were to advance, by a circuitous course, and take up their stand on the banks of the Hwangpu river, eastward and southward, over against the city walls. Such were the plans and numbers of the advancing hosts *supposed* to be. Dispatches had been repeatedly addressed, by them, to the foreign Ministers and Consuls in Shanghai; but these documents had not been received, nor had any official communications been sent to them in reply. Nothing therefore of all their plans and designs, in relation to foreigners, was known with any certainty on our part. Sources of real danger, however, were not wanting. The foreign settle-

ment and the neighboring villages and hamlets, as well as the city and suburbs, were known to be filled with bad men of all sorts, ready at any convenient moment to "do rebel business."

In regard to the line of posts to be defended and the forces stationed thereon, our details are briefly these.

The walls of Shanghai, three miles and three quarters in circumference, have seven gates, two on the north, one on the west, two on the south and two on the east. The city itself is egg-shaped, the largest end northward, abutting on the foreign settlement, with its two sides looking, one eastward, its wall on that side running nearly parallel with the river, and the other westward, towards the open country. Just off the south end of the city stands the Roman Catholic Cathedral; near it the Hwangpu river makes a right angle, as it comes down from the west; flowing past the city and foreign settlement to the mouth of the Suchau creek, it there makes another similar angle and then goes off to the east. The principal suburb is on the left bank of this river, extending from the Cathedral to the foreign settlement on the one side, and on the other to the great south gate and along the bank of the river westward. The Foreign Settlement extends about one mile from the north gates to the Suchau creek, and a little more than a mile from the Bund on the east to the Grand Stand on the west of the Race Course.

To defend these extended lines--for it had been determined to cover the city and suburbs as well as the foreign settlement,—about 1400 troops, with two or three steamers, had been appointed by the allied commanders. The head-quarters of the English were at the stone bridge, that spans the Suchau creek, about two miles from its mouth or junction with the Hwangpu. The land forces, French, English, and Sikh troops, were stationed in small detachments, in a line of posts stretching from the stone bridge to the Grand Stand, thence to the Ningpo guild-house, and on by the west gate to the river near the Cathedral; and also at each of the several city gates, with reserves in the foreign settlement and French concession. Lines of barricades and other inner defences had been nearly completed, during the week; and all the Imperial troops, at the disposal here of the provincial government, whose head-quarters were now in Shanghai, had been driven in, excepting only a small body stationed near Zi-ka-wei.

Such appears to have been the position of the respective parties

on the morning of Saturday, August 18th. Soon after noon, that day, the remnant of those whose duty it was to have defended this place, having been summarily dislodged and deprived of their artillery in their last outpost, came to the great south gate and were there admitted. Close upon them, and carrying the banners of the emperor's own soldiers, came the veritable *Changmao*, as if part and parcel of the same grand army.

As no official communication had as yet been made to these men, two steamers had that same morning been despatched up the river with a note from the allied commanders. These steamers may have deterred the flotilla from descending and making a night attack on the suburbs. But be this as it may, happily no flotilla ever came; and next day the two steamers returned, bringing back only the note they carried up, no rebel chiefs or others appearing to whom it could be delivered.

In the meantime, having advanced to the great south gate, the Rebels entered Mr. Mills' house, within pistol shot of the city walls. The chief, commanding that band, showed himself very friendly and exceedingly anxious to avoid hostile collision with foreigners, and with his own hand wrote and had posted up on the premises a card, of which the following is a translation.—

Chung wang Li's decree. Our officers and soldiers are not allowed to molest aught that pertains to the foreign residences of Shanghai. Violators of this decree shall be decapitated.

Seeing himself thus surrounded, and not knowing what might follow, Mr. Mills, from the rear of his house, called to the guards on the wall, to know if he and his missionary friends could be admitted into the city. This at once brought back to him the inquiry, "Who are those fellows?" Thus the English officers got the desired information from him; and the consequence was, showers of shot against the rebels, from well-directed rifle and cannon on the walls. Mr. Mills' position, at that moment, was delicate enough. The chief had declared himself and followers his brethren, worshippers of one and the same God and Saviour; and now asked him to request the foreigners to cease firing, "as they were all brethren." Mr. Mills could only throw himself on the mercy of his heroic guest, who assured him that his previous promise should be kept inviolate. The chief then mounted his horse and both he and his men took their leave.

Other scouts had already advanced westward and southward, not far from the walls; and in both directions the firing on them

was immediately opened, and with deadly effect. In the course of the afternoon, Mr. Mills, with the Rev. Mr. and Mrs. Farnham, all American missionaries, passed down quite through the eastern suburbs, where, at various points, on their way, they saw small companies of the rebels, but were in no way molested by them.

All that night and the next day, as no one knew with what numbers the settlement and the city would be invested, the sense of insecurity did not in the least abate. Consequently troops were ordered up from Chusan, and requisitions sent to Hong-kong and to the north for reinforcements. The military commanders also, in order to be prepared for the worst, ordered the ground near the walls, at the west, south and east gates, to be cleared. The burning of the houses began at once, on Saturday night; and, in the eastern suburbs, the conflagration did not cease till the following Friday.

Early on Monday morning, these visitors, who still maintained their friendly bearing towards all foreigners, were seen advancing in considerable strength from the west, and deploying, appeared as if about to give battle. This was soon after nine o'clock. On the part of the foreigners, every man was instantly at his post, ready for action; and every available gun was brought to bear upon the rebels, as directly as possible, from the Grand Stand, and along the whole west line of posts, and also from the steamers on the river. The firing was all, or nearly all, on one side.

To these men, so accustomed to victory during the last ten years, and now for the first time brought, in the open field, to meet Christian warriors face to face, this was a new mode of action. If any credence can be given to the apparently honest testimony of some of their camp followers, who were left behind, the terror among them was awful. They had boldly taken up their stand, as they supposed, at a safe distance, secure from all harm, and there in thick array planted their flags. They stood at first like statues; but when shell after shell came, from whence they could hardly tell, and in some few cases destroying instantaneously a score or more of their number, the effects were all that could have been imagined. Poor men—they could not long hesitate; reluctantly, but steadily they furled their bright banners, marched slowly back, and so finally disappeared.

What losses they may have sustained we have no means of ascertaining; their killed and wounded could hardly have been less than two hundred; it may have been twice that number.

The only foreigner killed, so far as we have heard, was a Jesuit missionary, Louis Massa; this occurred, as reported to us by the French Consul, on Friday the 17th of August, near the Orphan Hospital in Tsa-ka-wei, some miles distant from Shanghai. The particulars of the fatal incident we have not been able to ascertain.

The three following Notes, borrowed by us from the North-China Herald, August 25th, must close this part of our Record. The first with a similar one from the French was delivered to the Rebels on Wednesday the 22nd; and the second was received the next day. The date of the third corresponds to Aug. 21st.

No. 1.

SHANGHAI, 16th August, 1860.

Notification from the Military and Naval Commanders of H. B. M. Forces at Shanghai.

Reports having reached us of an armed force having been collected in the neighborhood of Shanghai, the Commanders of the Military and Naval Forces of Her Majesty at Shanghai hereby give notice, that the city of Shanghai and foreign settlement are militarily occupied by the forces of H. B. Majesty and her Ally the Emperor of the French, and they warn all persons that if armed bodies of men attack or approach the positions held by them, they will be considered as commencing hostilities against the Allied Forces, and will be dealt with accordingly.

To the Officers in command of the forces in possession of Soochow and other places.

No. 2.

LE, Imperial Commissioner of the Sovereign reigning in virtue of the True decree of Heaven, &c., &c., &c., hereby issues a notification.

Whereas the appointed period of the Tsing (Manchoo) dynasty having expired, the True Sacred Lord was sent into the world to save it. And I, having been honored with his commands to perform the work of Heaven by punishing the crimes (of the rejected dynasty), have, from the time I rose in the cause of right in Kwang-se, never fought a battle without conquering, and never attacked a city without taking it.

A short time back, on our armies occupying Soochow, your countries once and again pressed us to come to Shanghai, to discuss personally the various matters connected with foreign trade. Hence it was that after retaking Sung-keang, I came hither, not to seek a quarrel, and to fight with foreign nations, but to offer them a treaty of open commerce. And now perusing the communication of your countries, I am in the highest degree surprised at the extravagant perversity of its language.

I would submit to you that I, under the loyal prince, have the general command of a large body of officers, and of an innumerable army, and could have no difficulty in causing the instantaneous destruction of an insignificantly small city such as Shanghai. When I, therefore, came to the place and stationed my troops motionless before it, it was really in a spirit of pure regard and of consideration for our common faith. Had I at once ordered a hostile advance, the members of the same house would have been turning against each other, and we could not have failed to incur the ridicule of the Tsing dynasty.

With the Tsing dynasty, your nations have now a quarrel: you cannot have forgotten the battle at Tein-tsin. But our state, in at present carrying on a war, has no other object than to regain our own country; we are at enmity with the Tsing dynasty, but with foreign nations we have no quarrel.

Your countries attach much importance to open commerce and trade. Now the advantages to be obtained from us would be greater than those given by

the Tsing dynasty, for after the establishment of peaceful relations with us, unrestricted commerce might be carried on at all places without exception.

But the wild and fallacious nature of the communication which has reached us is such as renders it quite inexplicable. I must conclude that there is no consideration for the feeling that should make us of one mind, in virtue of our common religion, and that there is, it may be, an intention of seeking a quarrel.

For these reasons, I hereby issue a notification for the common information of the foreign nations (at Shanghai). If you desire to carry on open commerce in accordance with an agreement, you can at once come and consult on the terms of an agreement. If however, it is your wish to make difficulties and to engage in hostilities, then my troops move as a flood, my commands go forth unchangeable as the hills; and we can only await the time when victory and defeat declare themselves. I trust that you will not bring sorrow on yourselves.

An earnest notification. The 14th day of the 7th month of the 10th year of the Heavenly Kingdom of Tae-ping.

No. 3.

LE, the Loyal Prince of the Heavenly Dynasty, &c., &c., &c., addresses this communication to you, the honorable Consuls of Great Britain, United States of America, Portugal, and other countries.

That good faith must be kept is the principle which guides our Dynasty in its friendly relations with other peoples; but deceitful forgetfulness of previous arrangements is the real cause of foreign nations having committed a wrong.

When my army reached Soochow, Frenchmen, accompanied by the people of other nations, came there to trade. They personally called upon me, and invited me to come to Shanghae, to consult respecting friendly relations between us in future. Knowing that your nations worship like us, God the Heavenly Father, and Jesus the Heavenly Elder Brother, and are therefore of one religion and of one origin with us, I placed entire and undoubting confidence in their words and consequently came to meet you at Shanghae.

It never occurred to my mind that the French, allowing themselves to be deluded by the imps (the Chinese imperial authorities), would break their word and turn their backs upon the arrangement made. Not only, however, did they not come on my arrival to meet and consult with me, but they entered into an agreement with the imps to protect the city of Shanghae against us, by which they violated their original agreement. Such proceedings are contrary to the principles of justice.

Now supposing that the French take under their protection the city of Shanghae and a few *le* (a mile or two) around it, how will they be able, within that small space, to sell their merchandize and to carry on conveniently their mercantile transactions?

I have also learnt that the French have received no small amount of money from the imps of Hien-fung, (the Manchu Emperor,) which they have without doubt shared amongst the other nations. If you, other nations, had not received the money of the imps, why did several of your people also appear with the French, when they came to Soochow and invited me to Shanghae to confer together? It is clear as daylight that your people also appeared at Soochow, and urgently requested me to come to Shanghae. Their words still ring in my ears; it is impossible that the affair should be forgotten.

My army having reached this place, if the French alone had broken their engagements, coveted the money of the imps, and protected their city, how was it that not one man of your nations came to consult personally with me? You must have also taken money from the imps of Hien-fung, and divided it amongst you. Seeing again you committed a wrong, without taking into consideration that you would have to go to other places than Shanghae to carry on commercial business, you do not apparently know that the imps of Hien-fung, seeing that you nations are of the same religion and family as the Heavenly Dynasty, used money to establish a connection; this is employing others to kill, and using schemes to cause separation.

The French have been seduced by the money of the imps, because they only scheme after profits at Shanghae, and have no consideration for the trade at other places. They have not only no plea on which to meet me, but still less have they any ground on which to come before God the Heavenly Father and Jesus the Heavenly Elder Brother, or even our own armies and the other nations of the earth.

Our Sovereign Lord was appointed by Heaven, and has ruled now for ten years. One half of the territory he possesses contains the rich lands in the East and South. The national treasury contains sufficient funds to supply all the wants of our armies. Hereafter when the whole face of the country is united under our sway, every part will be contained within our registers, and our success will not depend on the small district of Shanghae.

But with human feelings and in human affairs, all acts have their consequences. The French have violated their faith and broken the peace between us. Since they have, in advance, acted thus contrary to reason, if they henceforth remain fixed at Shanghae to carry on their mercantile business, they may so manage. But if they again come into our territory to trade, or pass into our boundaries, I, so far as I am concerned may, in a spirit of magnanimity bear with their presence and refrain from reckoning with them on the past. Our forces and officers, however, who have now been subjected to their deceit, must all be filled with indignation and desirous of revenge; and it is to be feared that they will not again be permitted, at their convenience, to repair to our territory.

On coming to Soochow I had the general command of upwards of one thousand officers, and several tens of thousands of soldiers, a brave army which has power to put down all opposition, and whose force is strong as the hills. If we had the intention of attacking Shanghae, then what city have they not subdued? What place have they not stormed?

I have, however, taken into consideration that you and we alike worship Jesus, and that after all there exists between us the relationship of a common basis, and common doctrines. Moreover, I came to Shanghae to make a treaty, in order to see us connected together by trade and commerce. I did not come for the purpose of fighting with you. Had I at once commenced to attack the city and kill the people, that would have been the same as the members of one family fighting amongst themselves, which would have caused the imps to ridicule us.

Further, amongst the people of foreign nations at Shanghae, there must be varieties in capacity and disposition; there must be men of sense, who know the principles of right, and are well aware of what is advantageous and what injurious. They cannot all covet the money of the impish dynasty, and forget the general trading interests in this country.

Hence I shall for the present repress this day's indignation, and charitably open a path by which to alter our present positions towards each other. I am extremely apprehensive that if my soldiers were to take Shanghae, they would not be able to distinguish the good from the bad, in which case I should be without grounds to come before Jesus the Heavenly Elder Brother. Out of a feeling of deep anxiety on your behalf, I am constrained to make an earnest statement to you, foreign nations, as to what is wisdom and what folly in these affairs, and as to the amount of advantage and injury of the different courses open to you; and I beg you, foreign nations, again carefully to consider what course would be gainful, what a losing one.

Should any of your honorable nations regret what has occurred, and hold friendly relations with our State to be best, they need have no apprehensions in coming to consult with me. I treat people according to right principles, and will certainly not subject them to any indignities. Should however you, honorable nations, still continue to be deluded by the imps, follow their lead in all things, without reflecting on the difference between you, you must not blame me, if hereafter you find it difficult to pass along the channels of commerce, and if there is no outlet for native produce.

I have to beg all you, honorable nations, to again and again weigh in your minds the circumstances; and now write this special communication, and trust you will favor me with a reply. I beg to make enquiries after your health.

Tae-ping Teen-kwo, 10th year, 7th moon, and 12th day.

At Taku, turning now to the North, the *ultima ratio regum* has again been tried, by the proud "Son of Heaven." Off Peh-tang, early in August, some 200 ships had rendezvoused; and there some 11,000 English and 7,000 French troops, 2000 horses, 40 and odd pieces of artillery, with siege train, mortars, and other appliances had been landed, without opposition. There would seem to have been an advance on the 14th, and occasionally some skirmishing; when, early on the morning of the 21st, the day after the Insurgent host had marched towards Shanghai and marched off again, the allied armies moved forward to the attack, and planted their standards on the North Fort. The struggle, though not very prolonged, must have been severe, when suddenly white flags were hoisted, by the Chinese, on all their batteries. Sangkolinsin and the governor-general, with their brave Mongolian and Tartar troops had now done their best; and were apparently well-satisfied,—if, as we believe, the following note, bearing date that same day, be genuine. It was addressed to the allied commanders, by Hangfu, the governor-general, who was doubtless himself a spectator of that morning's work.

The honorable Commanders-in-chief have attacked the forts simultaneously by land and sea, and have taken possession of those on the north shore of the river. This success proves the great efficiency of the forces of the honorable Commanders, and the defeated Chinese army consequently submits.

Accordingly they have withdrawn from the forts on the south shore and consent to surrender, into the hands of the honorable Commanders-in-chief, all the forts with the whole of their munitions of war as well as all the fortified camps and other entrenchments.

The undersigned also engages to send people to shew to the officers, who may be appointed by the honorable Commanders-in-chief, the exact positions of all the mines which are in the forts, and the hidden defences which are placed in the river, so that no misfortune may happen to the honorable Allies.

It is understood that the surrender of the forts will be followed by a cessation of hostilities at this place, and that no injury shall be done to the inhabitants, who should be effectively protected both in their persons and properties.

Of the sequel, we learn, by current reports, that the allied forces were at Tientsin, and that Lord Elgin and Baron Gros were in communication with the emperor's high officers. This was on the 26th, five days after the fall of the forts at Taku.

In Peking, the war party, so hostile to all free and friendly intercourse with foreigners, had continued in the ascendant, excepting only for a little while last winter. Hwashana's death, it

was believed, had been occasioned by party strife, which had ran so high that, seeing his own downfall inevitable, he had recourse to poison, and thus by his own hand came to that miserable end.

The Russian mission in Peking, which continues on the most amicable relations with the Imperial Court, now consists of two branches, one diplomatic and the other partly scholastic and partly ecclesiastic. This latter has existed for nearly two centuries, and now consists of four clergymen, one medical practitioner, one mathematician or astronomer, and four students of the Manchu and Chinese languages. It has two churches, in which divine service is regularly maintained; also several schools, two of which are for girls, taught by native Christian ladies.

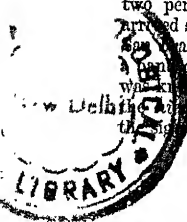
The diplomatic department is based on the new treaty; its members arrived in the capital June 16th last year; viz. major-general Ignatieff, aide-de-camp of H. R. M., envoy extraordinary and minister plenipotentiary; aide-de-camp of his excellency and capt. of the guards, Balluseck; Chinese secretary, Mr. Tatarinoff; secretary of Legation, Mr. Wolf; with attachés, &c.

From H. E. the major-general, while on a visit here last summer, we learned that the new boundary line, between the Russian and Chinese empires, is the Amour from its upper waters to its junction with the Usuri; from thence the Usuri becomes the line up to its head-waters; and thence the line is continued on to the sea, distant only a few miles from the Corean frontiers.

The great island opposite this new Russian coast is no longer subject to the authority of the Chinese or Japanese, though a few fishing stations are allowed to the latter on its extreme southern shores. Henceforth, therefore, the Island of Saghalien is to be regarded as a part of the Czar's possessions.

The old Albazin colony, established in Peking some two centuries back, has become nearly extinct, its members being now less than a score in number. The Russian language, however, is still taught in the capital to a select number of Chinese students.

Of affairs in Japan we have space only to chronicle two occurrences. On the 13th of Feby. the Japanese embassy to the United States, numbering seventy-two persons, left the bay of Yedo, and after a short and agreeable voyage arrived safely at Washington, on the 14th of May, via the Sandwich Islands, San Francisco, and Panama. On the 24th of March an attempt was made by a band of assassins to destroy the Regent, while on the way to his capital; he was known to have been severely wounded, and it is believed he has since died,—*the* *haou* having been changed from *ngan ching* to *wan yuen*. Such are the signs of the times in "the land of the rising sun."



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